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BIOGRAPHIC INFORMATION ON SOVIET SCIENTISTS

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FOREWORD

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Domestic Foreword

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## BIOGRAPHIC INFORMATION ON SOVIET SCIENTISTS

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## I. FOURTH SESSION OF THE CARPATHO-BALKAN ASSOCIATION

Following is a translation of an unsigned article in Geo-  
logicheskiiy Sbornik L'vovskogo Geologicheskogo Obshchestva  
(Collected Works on Geology of the L'vov Geological Society),  
No. 5-6, 1958, pages 607-611.

The Fourth Session of the Carpatho-Balkan Association of the International Geological Congress was held in Kiev and L'vov from 16 to 29 September 1958.

The Carpathian Association was founded in 1922 at the 13th International Geological Congress held in Brussels. The purpose of this association was to unite geologists from Carpathian countries in order to conduct a study of the Carpathian mountain system. The association included geologists from Poland, Rumania, Czechoslovakia and Yugoslavia. The first session of the Carpathian association was held in 1925 in L'vov and Borislav, and was attended by 65 geologists. At this session, the statutes of the association were discussed and approved, and corresponding secretaries from individual countries were elected, which included members of the association that were outstanding scientists, such as Dr. Tolvinskiy, one of the oldest geologists in Poland, Prof. Makoveya from Rumania, Prof. Kettner from Czechoslovakia, and Prof. Petkovich from Yugoslavia.

The second session of the association was held in Rumania in 1927, and the third session was held in Czechoslovakia in 1931. It was planned to hold the next session in Yugoslavia, but this session was never held, and the work of the association was interrupted until 1956. After a 25-year interval, a decision to revive the activities of the association and to redesignate it as the Carpatho-Balkan Association was adopted at the 20th Geological Congress in Mexico; this association was to unite geologists working in countries located in the Carpathian and Balkan mountain systems. The congress recommended that the next session of the association be held in the Soviet Union in 1958, provided that the Soviet government gives its approval.

The following countries were designated as members of the Carpatho-Balkan Association: the Bulgarian Peoples' Republic, the Hungarian Peoples' Republic, the Polish Peoples' Republic, the Rumanian Peoples' Republic, the Soviet Union, the Czech Peoples' Republic, and Yugoslavia. The following corresponding secretaries, responsible for the administration of the association's activities, were nominated: for Bulgaria, Prof. Yekim Bonchev; for Hungary, Prof. Elemer Vadac; for Poland, Prof. Marian Ksenzhevich (Russian spelling transliterated into English); for Rumania, Prof. Georgiy Makovey; for the USSR, Prof. Yevgeniy Lazarenko; for Czechoslovakia, Prof. Radim Kettner; and for Yugoslavia, Prof. Kosta Petkovich.

As a result of the favorable reply on the part of the Soviet government, the Presidium of the Academy of Sciences USSR established an Organization Committee (Orgkomitet) for convening the Fourth Session of the

Carpatho-Balkan Association, which was to be held in September 1958. The Orgkomitet included the following members: Chairman, Prof. Ye. K. Lazarenko, Corresponding Member of the Academy of Sciences of the Ukrainian SSR; Deputy Chairman, A. Ye. Babinets, candidate of geological and mineralogical sciences; Members: Prof. Dr. N. A. Belyayevskiy, Prof. Dr. A. A. Bogdanov, V. G. Bondarchuk, Member of the Academy of Sciences Ukrainian SSR; O. S. Vyalov, Member of the Academy of Sciences Ukrainian SSR, L. N. Kudrin, candidate of geological and mineralogical sciences, Prof. Dr. N. R. Ladyzhinskiy, V. B. Porfir'yev, Member of the Academy of Sciences Ukrainian SSR, N. P. Semenenko, Member of the Academy of Sciences Ukrainian SSR, Prof. Dr. V. I. Slavin, Academician V. S. Sobolev, Prof. S. I. Subbotin, Corresponding Member of the Academy of Sciences Ukrainian SSR, Prof. Dr. L. G. Tkachuk, and Academician N. S. Shatskiy. The Orgkomitet worked out a program for conducting the session, prepared and published excursion guidebooks and the texts of the papers to be presented at the session, and drafted preliminary lists of people who were to attend the session.

The Fourth Session of the Carpatho-Balkan Association was attended by 255 geologists, including 78 official delegates and 177 representatives from various Soviet geological organizations.

The national delegations present at the session included the following members:

Bulgaria: Head of the delegation, Yekim S. Bonchev, Corresponding Member of the Bulgarian Academy of Sciences; delegates: Prof. Stefan D. Boshev (Mining and Geological Institute); Anatas P. Delchev, chief geologist at the Geological Survey Administration; Boyan G. Kamenov, Corresponding Member of the Bulgarian Academy of Sciences (Mining Geological Institute); Prof. Ivan N. Kostov (Sofiya University), and Prof. Vasil Ts. Tsankov (Sofiya University).

Hungary: Head of the delegation, E. Sadetski-Kardos, Member of the Hungarian Academy of Sciences; delegates: L. Keresi, chief geologist; candidate member D. Kale; Dr. G. Panto (State Geological Institute); candidate of sciences F. Sentes (State Geological Institute); candidate of sciences I. Fulop (State Geological Institute).

Poland: Head of the delegation, Marian Ksenzhekevich, Corresponding Member of the Polish Academy of Sciences; delegates: Docent Dr. Yadviga Burtan (Cracow Geological Institute); Prof. Dr. Stanislav Vdovyazh (Cracow Geological Institute); Prof. Dr. Iosif Galamba (Ministry of Higher Education); Master Tadeusz Galkevich (Ministry of Metallurgy); Docent Casimir Guzik (Warsaw University); candidate of sciences Stanislav Depovski (Ministry of the Mining Industry and Power Engineering); Master Casimir Zhitko (Cracow Geological Institute); Prof. Dr. Marian Kameniski (Ministry of Higher Education); Prof. Stanislav Krayevskiy (Ministry of Higher Education); Docent Master Felix Mitura (Ministry of Mining Industry and Power Engineering); Master Veslav Novak (Cracow Geological Institute); Docent Zbignev Obukhovich (Ministry of Mining Industry and Power Engineering); Master Engineer Zbignev Olevich (Ministry of Mining Industry and Power Engineering); Prof. Dr. Adam Tokarski (Polish Academy of

Sciences); Prof. Dr. Genrikh Svidzinskiy (Polish Academy of Sciences); Engineer Iosif Zelinskiy (Ministry of Mining Industry and Power Engineering).

Rumania: Head of the delegation, Miltidu E. Filipescu, Corresponding Member of the Rumanian Academy of Sciences; delegates: Prof. Dan Dzhushka; Prof. Ion Dumitrescu; geologist Vasile Lazarescu; geologist Ion Motash; geologist Simon Pavlyuk; geologist Dan Patrilius; Mircha Savul, Corresponding Member of the Rumanian Academy of Sciences.

Soviet Union: Head of the delegation, Academician D. V. Nalivkin (Academy of Sciences USSR); delegates: Candidate of geological sciences F. S. Akhmedbeyli (Geological Institute of the Academy of Sciences Azerbaydzhan SSR); Candidate of sciences A. Ye. Babinets (Institute of Geological Sciences of the Academy of Sciences Ukrainian SSR); Candidate of sciences Ye. P. Bagdasaryan (Academy of Sciences Armenian SSR); Prof. Dr. N. A. Belyayevskiy (Ministry of Geology and Conservation of Mineral Resources); Prof. Dr. A. A. Bogdanov (Moscow University); Academician V. G. Bondarchuk, member of the Academy of Sciences Ukrainian SSR (Institute of Geological Sciences of the Academy of Sciences Ukrainian SSR); Prof. Dr. N. B. Vassoyevich, Leningrad (VNIGRI - All-Union Petroleum Scientific Research Institute for Geological Survey); Academician O. S. Vyalov, Member of the Academy of Sciences Ukrainian SSR (Institute for the Geology of Useful Minerals of the Academy of Sciences Ukrainian SSR); candidate of sciences V. V. Glushko, L'vov (Ukrainian All-Union Petroleum Scientific Research Institute for Geological Survey); Prof. Dr. P. K. Ivanchuk (Moldavian Affiliate of the Academy of Sciences USSR); Academician P. N. Kalugin (Academy of Sciences Turkmen SSR); Candidate of sciences I. I. Katushenok (Academy of Sciences USSR); I. V. Kacharova, Member of the Academy of Sciences Georgian SSR (Geological Institute of the Academy of Sciences Georgian SSR); F. T. Kashirin, Corresponding Member of the Academy of Sciences Kirgiz SSR (Academy of Sciences Kirgiz SSR); Prof. Dr. N. R. Ladyzhenskiy (Institute for the Geology of Useful Minerals of the Academy of Sciences Ukrainian SSR); Ye. K. Lazarenko, Corresponding Member of the Academy of Sciences Ukrainian SSR (L'vov University); Candidate of sciences R. A. Musin (Academy of Sciences Uzbek SSR); Prof. Dr. M. V. Muratov (Moscow Geological Survey Institute); V. B. Porfir'yev, Member of the Academy of Sciences Ukrainian SSR (Institute for the Geology of Useful Minerals of the Academy of Sciences Ukrainian SSR); Prof. Dr. V. I. Slavin (Moscow University); Academician V. S. Sobolev (L'vov University); Candidate of sciences V. F. Solov'yev (Academy of Sciences USSR); Candidate of sciences V. A. Chepushite (Academy of Sciences Lithuanian SSR); Academician N. S. Shatskiy (Geological Institute of the Academy of Sciences USSR).

Czechoslovakia: Head of the delegation, Dr. Mikhal Magel' (Bratislava Geological Institute); delegates: Dr. T. Buday (Prague Central Geological Institute); Dr. Mikulash Dlabich (Petroleum Institute in Brno); V. Zoubek, Corresponding Member of the Czech Academy of Sciences (Central Geological Institute); Dr. Jan Ilavskiy (Bratislava Geological Institute); Dr. Alois Mateyka (Central Geological Institute); Dr. Miroslav Mashka (Central Geological Institute); Engineer Stefan Ogurchak (Central Geological

Institute); Dr. Nela Onchakova (Kosice Polytechnic Institute); Dr. Z. Rot (Central Geological Institute); Iosif Sekanina, Corresponding Member of the Czech Academy of Sciences (Brno University); Dr. Ya. Senesh (Bratislava Geological Institute); Dr. Otto Fuzan (Bratislava Geological Institute); geologist Khmelik (Central Geological Institute); Prof. Dr. Jan Shalat (Kosice Polytechnic Institute); Dr. Iosif Shvagrovskiy (Bratislava Geological Institute).

The session was opened on 16 September in Kiev by an introductory address delivered by the chairman of the previous session (head of the Czech delegation), and by the chairman of the present session (chairman of the Orgkomitet); whereupon, brief greeting speeches were made by the heads of the delegations representing the various member countries of the Carpatho-Balkan Association. Greetings to the session were presented by I. S. Senin, deputy chairman of the Council of Ministers Ukrainian SSR, on behalf of the government of the Ukrainian SSR, and by G.I. Arkad'yev, deputy chairman of the Executive Committee (Ispolkom) of the Kiev City Soviet of Workers' Deputies, on behalf of the Kiev City Soviet of Workers' Deputies.

On 17 September, the following reports were presented and discussed at the session: "Tectonics of the Soviet Carpathian Mountains", by O. S. Vyalov (USSR); "The Clippen Zone in the Carpathian System", by D. N. Andrusov (Czechoslovakia); "Main Structural Aspects of the Western Carpathian Range", by T. Buday, V. Zoubek, A. Mateyka and M. Magel (Czechoslovakia); "Tectonic Relationships Between the Southern Carpathian Mountains and the Balkanide Range", by Ye. S. Bonchev (Bulgaria); "Tectonic Map of Hungary", by F. Sentes (Hungary); and "The Geological Structure of Marmarosh", by D. Patrilius, I. Motash and M. Blyakhu (Rumania).

On 18 September, delegates to the session took part in a steamboat excursion along the Dnepr to Kanev, where they inspected the Kanev dislocation region, which occupies a unique position from a geological standpoint. The delegates visited the tomb of the great Ukrainian poet T. G. Shevchenko and placed a wreath on his tomb. In Kanev, delegates to the session were able to meet and talk with local workers.

On 19 September, the session continued its work in Kiev, where the following reports were presented and discussed: "Basic Rules Governing the Formation of Mineral Deposits in the Soviet Eastern Carpathian Range", by Ye. K. Lazarenko (USSR); "Petroleum and Gas Deposits in the Soviet Eastern Carpathian Range", by N. R. Ladyzhenskiy (USSR); "Contemporary Status of the Theory Concerning the Origin of Petroleum", by V. B. Porfir'yev (USSR); "Problems Concerning Volcanic Carpathian Mountains in the Light of a New Magmatite System", by E. Sadetski-Kardos (Hungary); "Volcanic Developments in the Baya-Mare Region", by D. Dzhushka (Rumania); "The Paleogeography of the Northern Polish Carpathian Range", by M. Ksenzhevich (Poland); "The Problem of Overthrusts in Flysch Carpathian Mountains", by G. Svidzinskiy (Poland); "A Tectonic Map of Rumania", by I. Dumitrescu (Rumania); "Parallelism Between the Black Shale in the Flysch of Eastern Carpathians and Chalk Deposits in the Northern Carpathian Range", by E. Filipescu (Rumania); and "Geology of the Central Carpathian



Range", by A. Mateyka (Czechoslovakia).

On 20 September, delegates to the session left for L'vov, and on 21 September took part in an excursion to the suburbs of L'vov, where they inspected upper calcareous outcrops, lower and upper Tortonian layers, Buglov layers of the lower Sarmatian stage, and also various phases of Tortonian deposits.

On 22 September, the session continued its work in L'vov, where the following reports were presented and discussed: "Basic Problems Concerning the Stratigraphy of the Soviet Eastern Carpathian Range", by V. I. Slavin (USSR); "Main Problems Concerning the Formation of Flysch", by N. B. Vassoyevich (USSR); "The Flysch Phase in the Deep Structure of the Hungarian Lowland", by L. Keresi (Hungary), and "The Neogene System of Eastern Slovakia", by I. Shvagrovskiy (Czechoslovakia).

On 23-28 September, delegates to the session took part in a 5-day excursion covering the following route: L'vov-Drogobych-Truskavets-Stebnik-Borislav-Skole-Svalyava-Mukachevo-Uzhgorod. During this excursion, the delegates had an opportunity to become acquainted with the region connecting the south-western boundary of the Russian platform with the Pre-Carpathian marginal depression, and also with the folded Carpathian geosyncline region and the Trans-Carpathian depression (or Internal depression).

At several points between Drogobych and Borislav, the delegates inspected Myocene deposits (of the Stebnik, Galician and Vorotyshchensk series); in Borislav, along the Tismenitsa River, they inspected Myocene deposits (of the Vorotyshchensk series), as well as Paleogene and calcareous deposits, as a basis for discussing problems related to the tectonics of the region forming a part of the Internal zone of the Pre-Carpathian depression and of the Skibov Carpathian range; at Truskavets and Stebnik, the delegates examined details of a stratigraphic column of deposits included in the bottom layers of the Stebnik series and in the upper portion of the Vorotyshchensk series, in particular the deposits on Glorietta Hill, and in Truskavets, the Myocene profile section along the Vorotyshche River, between Truskavets and Stebnik, and the lower portion of the Stebnik series in Stebnik; in Skole, the delegates inspected calcareous and Paleogene deposits, as well as similar deposits located between the "Lower Gates" (Nizhniye Vorota) and Podpoloz'ye; at the same location, the delegates were given a briefing on the tectonics of the Central Carpathian and Magura zones. At the Polyana health resort, the touring delegates became acquainted with the mineral springs of Polyana and of the Trans-Carpathian region in general. At Kolchino near Mukachevo, the session delegates inspected an andesite quarry; between Kolchino and Mukachevo, they examined a tuff-breccia outcrop of andesite-basalts and andesites; in Uzhgorod, the delegates visited a museum and castle, as well as an andesite quarry in Radvanka; and in Beregovo, the delegates inspected liparite and kaolin mines. At Drogobych and in the Trans-Carpathian region, the delegates again had an opportunity to meet and talk with local workers.

At the final session, held on 29 September, the delegates discussed and approved a modified and supplemented Statute of the Carpatho-Balkan Association (see below), and adopted a resolution providing measures for the administration and scientific strengthening of the association (see below).

Following statements made by the heads of the Rumanian, Polish and Bulgarian delegations, the delegates proposed to hold the next Fifth Session of the Carpatho-Balkan Association in Rumania in 1961, the Sixth Session in Poland, and the Seventh Session in Bulgaria.

At the closing of the session, speeches were delivered by the heads of the Rumanian, Bulgarian, Polish, Hungarian and Czech delegations, and by the chairman of the session, Prof. Ye. K. Lazarenko, Corresponding Member of the Academy of Sciences Ukrainian SSR.

The session sent greetings by telegram to the following chairmen of previous sessions: Prof. Konstantin Tolvinski (Poland), Academician Georgiy Makovey (Rumania), and Academician Radim Kettner (Czechoslovakia).

The work carried out during this session of the Carpatho-Balkan Association took place in an atmosphere of hearty friendship between the scientists from the various member countries of the association.

The work done during the session represents a valuable contribution to the study of the geological structure of the Carpathian Mountains, and promoted an exchange of scientific experience and the strengthening of the friendship and scientific collaboration between the people of Carpathian and Balkan countries.

## II. VLADIMIR MIKHAYLOVICH KREYTER

(On his 60th Birthday)

Following is a translation of an article by V. N. Kozerenko, Ye. M. Laz'ko and D. P. Rezvoy in Geologicheskii Sbornik L'vovskogo Geologicheskogo Obshchestva (Collected Works on Geology of the L'vov Geological Society), No.5-6, 1958, pages 595-597.

In October 1957, geological circles in our country celebrated the 60th birthday of Vladimir Mikhaylovich Kreyter, an outstanding scientist and geologist.

V. M. Kreyter is well known both in scientific circles and in industrial geological organizations. This well-deserved popularity is based on the fact that, during the entire period of his exceptionally energetic and productive activity, V. M. Kreyter was able to combine very successfully a high level and great depth of theoretical research with a study of essential industrial requirements on the part of the Soviet geological survey service.

Vladimir Mikhaylovich Kreyter was born on 24 October 1897 in the town of Kuznetsk, Kemerovo Oblast', in the family of a rural teacher.

In 1915, V. M. Kreyter enrolled into the Petrograd Mining Institute; however, he was soon forced to interrupt his studies, and for 4 years, he served at the front during World War I and then during the civil war.

He graduated from the mining institute in 1928. Even prior to completing his studies at the institute, V. M. Kreyter was in charge of important geological survey operations at the Kizel' hard coal deposits in the Urals, and then at polymetallic ore deposits in the Eastern Trans-Baykal region. During this period, Vladimir Mikhaylovich already published a number of scientific articles, concerned both with methods used in survey operations and with geological aspects of the deposits studied.

In the late 1920's, on the basis of his work experience at the polymetallic deposits in the Eastern Trans-Baykal region, V. M. Kreyter recommended the use of the shot core drilling method. He designed the necessary equipment, established the technical characteristics and operating conditions of this new drilling method, and was the first man in the world to show the possibility of drilling sloping wells by this method. It is difficult to overestimate the economic importance of this proposal, made by V. M. Kreyter, since the USSR has considerably reduced its import of industrial diamonds as a result of the introduction of the core drilling method.

In 1929, Vladimir Mikhaylovich was sent on an official mission to the USA, in order to study methods used in surveying deposits of nonferrous metals. He described his impressions in a number of scientific



coreespondence articles and in an extensive summary article. After his return to the USSR, V. M. Kreyter continued to work as chief of a geological party group and as consultant with the leading geological scientific-methodical organization in the USSR, namely the Main Geological Survey Administration of the Supreme Council of the National Economy (VSNKh), reorganized on the basis of the former Geological Committee.

The year 1932 marked the beginning of a very successful stage in the scientific-pedagogical activity of V. M. Kreyter. During this year, he was appointed professor at the chair for survey operations of the Moscow Geological Survey Institute, and the following year, he was appointed head of this chair. Since 1935, V. M. Kreyter has also been serving as head of the chair for mining geology at the Moscow Institute of Nonferrous Metals and Gold. For a period of 2 years, from 1937 to 1939, V. M. Kreyter served as dean of the geological survey faculty at the Moscow Geological Survey Institute.

V. M. Kreyter was always able to combine his pedagogical work with active work as a consultant and expert on behalf of various large geological survey and industrial mining organizations. At various times, he served as a consultant on geological matters with geological field parties subordinate to the Committee, as well as with field parties and mines operated by Glavmed' (Main Administration of the Copper Industry), Glavtsinksvinets (Main Administration of the Lead and Zinc Industries), Glavredmet (Main Administration of Rare Metals), Glavnikel'olovo (Main Administration of the Nickel and Tin Industries), Glavzoloto (Main Administration of the Gold Industry), Glavkhimprom (Main Administration of the Basic Chemical Industry), and with many other organizations and enterprises. Upon instructions from government organizations, V. M. Kreyter visited the Urals, the Caucasus, Central Asia and the Ukraine, in order to evaluate and offer expert advice on the status of mineral deposits. It is possible to state that the majority of large deposits of nonferrous, rare, noble and common metals in our country were evaluated by V. M. Kreyter either as a result of local visits or during the determination of available reserves and the design of mining enterprises.

Many deposits in our country and entire ore regions formed the subject of a special study by V. M. Kreyter, which resulted in extensive general conclusions of great scientific and practical importance. In connection with the study of individual deposits and ore regions, V. M. Kreyter conducted a detailed study of the structure of ore fields and deposits. These problems are described in numerous publications, including such monographs as "Nonferrous Metals Found in Eastern Siberia" (1933), "Polymetallic Deposits of Central Asia" (1937), and "Structure of Ore Fields and Deposits" (1956).

The main trend of the scientific studies performed by V. M. Kreyter included an extensive development of the theory concerning mineral survey and prospecting operations. V. M. Kreyter may be considered as the founder of a new discipline (subject), which has evolved in our country as a result of an exceptionally great development of geological survey operations. On the basis of general statements deduced from an

enormous volume of literature data, and as a result of his extensive experience in the study and prospecting of minerals, V. M. Kreyter was able to find new approaches in the matter of survey and prospecting work, and has founded a new and important scientific discipline, involving the study of conditions under which minerals are found, of methods allowing the most effective determination and evaluation of mineral deposits, which satisfy the requirements of the plan for the national economy of our country.

It is possible to establish definite stages in the development of the theory concerning mineral survey and prospecting work, worked out by V. M. Kreyter. Data dealing with methods used in prospecting operations are presented in two works, published in 1931 and 1932 under the editorship of V. M. Kreyter, and in his course "Methods Used in Survey Operations", published in 1933. In this connection, the publication in 1940 of his major work, entitled "Mineral Survey and Prospecting", in which the original concepts of the author are most fully expressed, represents the conclusion of an important stage in the activity of V. M. Kreyter. On the basis of a determination of the most important industrial types of mineral deposits, V. M. Kreyter directs the attention of geologists to the determination of minerals which are of major importance from an economic standpoint. In the above textbook, methods used in the conduct of survey operations form the subject of a special section, devoted to a description of survey criteria, in which data concerned with various survey symptoms are summarized. In this study of V. M. Kreyter, methods used in conducting a detailed geological survey of ore fields and other areas where minerals are found are described for the first time.

The methods proposed by V. M. Kreyter for surveying mineral deposits are based on a classification of deposits according to their morpho-genetic symptoms and technical-methodical survey procedures; in addition, a classification of deposits is presented, which is based on the difficulty encountered during the survey of such deposits. Finally, in this work, V. M. Kreyter presents the fundamentals of mining geology and substantiates the methods which must guide the activities of a mining geological service.

Later, other investigators worked out the details and developed the basic principles and statements, so clearly and purposefully outlined in the above major work of V. M. Kreyter. Thus, we are fully entitled to speak about a "Kreyter stage" in the development of a theory concerned with survey and prospecting operations, since the main concepts, worked out by V. M. Kreyter, still represent the principal subject matter of this important scientific discipline.

During the years of World War II, V. M. Kreyter conducted an expert evaluation of various mineral deposits in Central Asia, including important deposits of scheelite-bearing skarns forming a part of the large Central Asian tungsten region, which at that time was only in the process of formation. At the same time, V. M. Kreyter served as head of the chair for survey operations at the Central Asian Industrial Institute.

In 1943, V. M. Kreyter reorganized the entire scientific training

program at the Moscow Institute of Nonferrous Metals and Gold and at the Moscow Geological Survey Institute.

In 1945, upon his initiative, the study of the polymetallic region in the Eastern Trans-Baykal area was resumed. In 1947, V. M. Kreyter visited this region and served as special adviser (consultant) which the geological group which he helped to set up, as well as with other geological survey and mining organizations. In 1949, upon the initiative of V. M. Kreyter, a special group was set up for studying polymetallic deposits in the Altay region, which is still pursuing its work successfully at the present time.

V. M. Kreyter performed extensive work in regard to the training of highly-qualified staffs of geological surveyors and prospectors in our country. In all parts of our vast country, geological engineers who have studied under V. M. Kreyter recall with sincere gratitude his brilliantly delivered lectures, so rich in content, as well as his instructive consultations.

In view of his extensive erudition, inborn pedagogical talent and great personal charm, Vladimir Mikhaylovich was always able to attract large numbers of young people. Numerous scientific workers were trained by V. M. Kreyter: his pupils include 25 candidates and 6 doctors of geological-mineralogical sciences.

V. M. Kreyter is the author of over 100 scientific articles and publications.

On the occasion of the 60th birthday of Vladimir Mikhaylovich Kreyter, his numerous friends and pupils extend to him their best wishes for a long life and for new creative achievements aimed at the benefit of our great country. His rich, brilliant and varied activities have always been and will continue to be a model and an example to emulate in the future.

### III. VLADIMIR IVANOVICH POPOV

(On His 50th Birthday and 30th Anniversary of Scientific Activity)

[Following is a translation of an article by the Society Council of the Geological Faculty in Geologicheskii Sbornik L'vovskogo Geologicheskogo Obshchestva (Collected Works on Geology of the L'vov Geological Society), No.5-6, 1958, pages 598-599.]

On 23 February 1957, Vladimir Ivanovich Popov, an outstanding research geologist and pedagog, member of the L'vov Geological Society, professor at the Central Asian University and doctor of geological-mineralogical sciences, celebrated his 50th birthday and his 30th anniversary of scientific activity.

In addition to performing extensive and very important research work in various regions of Central Asia, V. I. Popov has devoted a number of his studies to general problems in the geological field, such as the study of geological formations, problems related to geotectonics, and problems concerned with the metamorphism and distribution of minerals.

The regional studies conducted by V. I. Popov in the Darvaz and Pamir area contributed to the elimination of "blank spots" from geographical and geological maps of these high-mountain regions.

In the Kuraminsk range, Southern Fergana and Karategin regions, V. I. Popov has surveyed, and in some cases, has been able to discover, ore deposits forming the basis of presently operating mining enterprises.

In 1937, at the 17th session of the International Geological Congress, V. I. Popov read a report dealing with the continuity of tectonic movements. The principles outlined in this report (which at present are shared by a large number of geologists) formed the basis of a widely known book, entitled "History of Depressions and Upheavals in the Western Tyan-Shan Region". On the basis of a huge volume of factual data, this work presents the development of a concept of wave-like movements of the lithosphere and the idea of a gravitational folding; and for the first time in the history of Central Asia, the thought is expressed, concerning the major importance of vertical oscillatory movements in the formation of the entire structure of this region.

In 1937, V. I. Popov was appointed head of a group engaged in the study of molassic Cenozoic formations in Central Asia. In a series of studies (1951-1954), the basic concepts of the theory concerning sedimentary continental formations were described, and in 1954, his extensive monograph, entitled "Lithology of Cenozoic Molasses of Central Asia", was published. However, a brief perusal of the first volume of this voluminous capital work is sufficient to come to the conclusion that the contents and significance of this particular work are considerably greater and wider in scope than its title indicates. Problems concerned with a study of continental sediments in Central Asia are preceded by a number

of chapters dealing with the most thorough theoretical fundamentals of geology in general. In these chapters, V. I. Popov expresses his ideas, which frequently do not agree with generally accepted ideas, but which are always of a bold and original nature.

In the past few years, the basic concepts of V. I. Popov's "Nuclear Theory of the Development of the Earth's Crust" have been published in various editions. This theory, based on the contrast between "nuclear" sectors having a relatively low mobility and pervious to magmatic derivatives, and "internuclear" sectors, having a very high mobility but relatively impervious, may be used as a basis for the regional geological break-up of Central Asia. Nuclear and internuclear sectors are characterized by the presence of peculiar and different sedimentary-volcanogenic formations and by various geophysical factors, as well as by the presence of peculiar types of minerals.

Although it is the subject of numerous controversies, the "nuclear" theory no doubt exhibits a number of progressive features and represents a valuable contribution to the elaboration of a general theory for the development of the earth's crust.

The pedagogical activity of V. I. Popov has already been in progress for over 20 years. During this period, a large number of young specialists and post-graduate students (aspirants) have been trained in the chair headed by V. I. Popov at the Central Asian State University, and are engaged in a successful study of the mineral resources of the Soviet Union.

V. I. Popov is a tireless participant and organizer of a wide variety of geological conferences, sessions and meetings. The active participation of V. I. Popov in the session of the L'vov Geological Society, devoted to problems concerning general and regional tectonics, which was held on 23-27 January 1957, was reflected in his extensive report on general problems of geotectonics, delivered on the opening day of the session, in his active discussion of a number of other reports, and in his active participation in drawing up the resolutions adopted at this session.

The L'vov Geological Society and the geological faculty of the L'vov State University Imeni I. Franko extend their hearty congratulations to V. I. Popov on his 50th anniversary, and their best wishes for further achievements in connection with the development of geological science.

#### IV. AN OUTSTANDING SCIENTIST IN THE FIELD

##### OF MECHANICS

(On the 50th Anniversary of Kh. A. Rakhmatullin, Member of the Academy of Sciences of the Uzbek SSR)

Following is a translation of an article by M. T. Urazbayev, Member of the Academy of Sciences Uzbek SSR, Chairman of the Jubilee Committee, in Izvestiya AN UzSSR (News of the Academy of Sciences Uzbek SSR), No. 3, 1959, pages 3-7.

Khalil Akhmedovich Rakhmatullin, Member of the Academy of Sciences Uzbek SSR and Stalin Prize laureate, has just celebrated his 50th birthday. 25 years of his life were devoted to scientific-research work and to pedagogical and public activities.

Kh. A. Rakhmatullin was born in 1909 in a town of Tokmak. His childhood was spent in very difficult conditions. He lost his mother and father at an early age, and started to work as a farm laborer (batrak) while still very young. However, his thirst of knowledge was so great, that he was able to receive an education.

In 1928, having completed very successfully his studies at the Tashkent Regional Uzbek Pedagogical Tekhnikum, he enrolled into the mathematics section of the physical-mathematical faculty of the Central Asian State University. Later, he continued his studies at the mechanical-mathematical faculty of Moscow State University. As a result of his exceptional abilities and diligence, Kh. A. Rakhmatullin completed with honors his course of studies at Moscow University over a period of 3 years, and did post-graduate work as an aspirant at the Scientific-Research Institute of Mechanics of Moscow University. Under the leadership of Academician L. S. Leybenzon, Kh. A. Rakhmatullin brilliantly defended, in 1937, his candidate's dissertation on the topic "Certain Problems of Gas Dynamics".

The contribution made by Kh. A. Rakhmatullin to various fields of mechanics is very significant. His work has been of fundamental importance in the field of hydroaerodynamics, and in the field of the dynamic theory of elasticity and plasticity. The name of Kh. A. Rakhmatullin is associated with new trends in mechanics, and with the solution of a number of scientific problems having a national, economic and military defense importance.

In order to give a full description of all the scientific achievements of Kh. A. Rakhmatullin, it would be necessary to study an enormous volume of factual data and to analyze various branches of mechanics. In this article, we shall merely attempt to describe the most important trends of the versatile scientific activity of Khalil Akhmedovich.



## 1. Studies Concerned With the Dynamic Plasticity Theory

The first study in this field, "On the Propagation of Discharge Waves", was published in 1945 in the journal "Prikladnaya matematika i mekhanika" (Applied Mathematics and Mechanics), Vol. X, No. 1, 1945. Similar studies conducted by foreign scientists, such as Taylor, Karman and Dewey, appeared in the open press only 5 years later (1950).

The above study of Khalil Akhmedovich opened up a new trend, from a qualitative standpoint, in the dynamics of continuous media. It is necessary to point out that the nature of the load and discharge process in plastic bodies is different from that which takes place in other bodies (Figure 1). The load process takes place in a nonlinear manner and may be represented by a certain line OA, while the discharge (unloading) is represented by a straight line AB. At the same time, the position of point A cannot be established in advance, neither in time, nor in space; this position is determined during the course of calculation, and this fact constitutes the peculiar nature of the problem.

Thus, the problem of the dynamic plasticity theory can be broken up into 3 parts:

1. Study of nonlinear oscillations in the OA portion.
2. Determination of the position of transition points (in time and in space), from a loading to an unloading (discharge) status.
3. Perform an elasticity calculation, which takes into account the values of the magnitudes to be found at the beginning of the discharge.

The first and third parts of the problem were already the subject of extensive research at an earlier date, and are now classical problems. As was already noted above, the main difficulty was to plot a line in a plane surface (for one-dimensional bodies), and to plot a surface in a space  $xyt$ ,  $xyzt$  (for two- and three-dimensional bodies), along which the transition from a load to a discharge takes place. Such lines and surfaces were designated by Kh. A. Rakhmatullin as discharge waves; in scientific circles, they were appropriately designated as "Rakhmatullin waves".

We would like to point out one peculiar feature of the studies performed by Khalil Akhmedovich. All problems are solved by him in a very thorough manner, i. e. his research work is conducted to the stage of calculating formulas and numerical results, and always culminates in an experimental check of these results. Thus, on the basis of the discharge wave theory, a method has been developed for obtaining a dynamic tension and compression diagram beyond the elasticity limits. Later, in a study entitled "On the Propagation of Cylindrical Waves During Plastic Deformations", published in "Applied Mathematics and Mechanics", Vol. XII, No. 1, 1948, Kh. A. Rakhmatullin was able to solve the important problem of a torsional (twisting) impact.

The theory of multiple impacts was presented in a study entitled "On the Propagation of Discharge Waves Along a Stem With A Variable Elastic Limit", published in "Applied Mathematics and Mechanics", Vol. X, No. 3, 1946, in which the law of the accumulation of residual stresses was

established. This theory is used in calculating the structural endurance of gun barrels operating at high pressures.

A series of studies conducted by Rakhmatullin is devoted to the elaboration of a theory of elastic-plastic oscillations of filaments subject to the action of a direct and oblique impact. The results were checked and confirmed on hand of highly refined tests involving the use of high-speed motion picture photography. Apparently, the process involving plastic deformations in such media as concrete, ground layers, sand and mineral ores is also irreversible, and consequently, the propagation of shock waves in such media will always result in the formation of a discharge wave. A study of such phenomena resulted in the elaboration of a theory of the penetration of solid bodies into concrete and ground layers, and also of a theory of propagation of shock waves in such media.

A unit and special equipment designed at the Moscow State University under the direction of Kh. A. Rakhmatullin make it possible to conduct important experimental studies dealing with the penetration of solid bodies into ground layers, and also allows the determination of dynamic properties of ground and concrete layers.

In addition to the above-mentioned theoretical studies, Prof. Kh. A. Rakhmatullin has performed a number of experimental studies, which have confirmed the correct nature of his theory.

A study entitled "Experimental Study of a Longitudinal Impact Upon a Rod During Plastic Deformations" shows the almost linear relationship between the residual stress of an aluminum rod and the impact velocity. On the basis of the experimental straight line obtained, the impact elastic limit and the strengthening modulus were calculated. The impact elastic limit was found to be 2-2.5 times higher than the statistical elastic limit.

Kh. A. Rakhmatullin has developed a method for obtaining an impact compression diagram of metals, which represents a further development of experimental studies dealing with a longitudinal impact.

Tests dealing with a study of the effect exerted by a lateral impact upon a rubber braid fully confirmed the theoretical scheme of a lateral impact, obtained by Kh. A. Rakhmatullin at an earlier date. The tests were conducted with impact velocities of up to 150 m/sec. The picture showing the movement occurring during impact was obtained by means of spark photography and high-quality motion picture photographic methods. Kh. A. Rakhmatullin has also developed a method for determining the diagram during the dynamic discharge process.

## 2. Studies on Gas Dynamics

Prof. Kh. A. Rakhmatullin has also conducted a number of scientific research studies in the field of gas dynamics. The most important studies in this field are the following:

1. A theory of an aircraft rocket engine for supersonic flight speeds, elaborated for the first time, which takes into account a rapid change in compression in front of the engine.



2. Subsonic currents of a compressed fluid in channels.
3. Supersonic streamline flow of asymmetric bodies with channels.

The studies conducted by Kh. A. Rakhmatullin are concerned with urgent, present-day problems in the field of high-speed aerodynamics. These studies are concerned with numerous subjects, which formed the basis of several candidate dissertations.

Kh. A. Rakhmatullin performed a number of experimental studies in the field of gas dynamics, and first of all, designed a unit for the production of high pressures. With the aid of this unit, it is possible to obtain high motion velocities of bodies, and also to create aerial currents with ultrahigh M numbers.

### 3. Studies on the Theory of Motion of Multiphase Media

Sofar, the mechanics of continuous media has been concerned with an examination of such bodies as fluids and gases, elastic and elastic-plastic bodies. In his fundamental studies, entitled "Fundamental Gas Dynamics of Interpenetrating Movements of Compressible Media", published in "Applied Mathematics and Mechanics", Vol. 20, No. 4, 1956, and "Theory of a Two-Speed Boundary Layer", presented as a report at the International Symposium on Boundary Layers held in August 1957 in West Germany, Kh. A. Rakhmatullin introduced a new multiphase medium and a closed control system describing the movements of such a system. A multiphase medium is obtained from interpenetrating systems by reducing each component to a continuous medium.

In the first one of the above-mentioned studies, the following equations representing the movement of an n-phased fluid are deduced: Motion equations:

$$\begin{aligned} \frac{du_n}{dt} &= - \frac{1}{\rho_{ni}} \cdot \frac{\partial p}{\partial x} + \sum_{j=1}^N \frac{K_{jn}}{\rho_n} (u_j - u_n) + X_n, \\ \frac{dv_n}{dt} &= - \frac{1}{\rho_{ni}} \cdot \frac{\partial p}{\partial y} + \sum_{j=1}^N \frac{K_{jn}}{\rho_n} (v_j - v_n) + Y_n, \\ \frac{dw_n}{dt} &= - \frac{1}{\rho_{ni}} \cdot \frac{\partial p}{\partial z} + \sum_{j=1}^N \frac{K_{jn}}{\rho_n} (w_j - w_n) + Z_n \quad (n=1, \dots, N); \end{aligned} \quad (1)$$

Continuity equation:

$$\frac{\partial \rho}{\partial t} + \text{div}(\rho \mathbf{v}_n) = \sum_{j=1}^N \lambda_{jn} \rho_j - \rho_n \sum_{j=1}^n \lambda_{nj}; \quad (2)$$

Equation of state:

$$P = P(\rho_{ni}, C_n). \quad (3)$$

In these equations,

$u$  - Velocity;

$u_n$  - Velocity of the  $n$ th phase;

$\bar{\rho}_n$  and  $\rho_{nj}$  - Average and true densities of the  $n$ th phase;

$\lambda_{nj}$  - Velocity of conversion of the  $n$ th component into the  $j$ th component;

$C_n$  - Constant, depending upon the entropy;

$K_{jn}$  - Interaction function of the components on  $X_n$  - volume forces.

Equation (1) can be supplemented by components, which take the viscosity and plasticity of the medium into consideration.

The same study contains an investigation of wave propagation laws, and notes the presence of certain new types of waves in multiphase media. In addition, conditions are pointed out, under which the composition of the mixture changes in a certain direction (theorem concerning changes in the composition of the mixture).

Prof. Rakhmatullin's theory of multiphase media has found an exceedingly wide field of application. First of all, with the aid of this theory, it is possible to obtain all equations of single fluids and gases, as well as equations of the dynamic elasticity and plasticity theory. In addition, on the basis of this theory, it is possible to solve such important engineering problems as the movement in ground layers of fluids saturated with gas bubbles or solid particles (filtration), the movement of channel currents carrying alluvial suspensions, the propagation of seismic waves in ground layers, in erosion zones, etc.

The theory developed by Kh. A. Rakhmatullin also describes processes associated with the movement of mixtures, such as those encountered in such technical fields as petroleum extraction and distillation, pneumatic and hydraulic transport, dust processing and combustion (coal and peat dust), the mixing and separation of various media, and the separation of a solid phase from air saturated with dust. The application of this theory should also yield favorable results during the study of the movement of colloidal fuels, liquid-vapor mixtures in steam generators and condensers of air saturated with liquid droplets.

The above-mentioned cases do not represent by any means a complete list of the problems which may be solved with the aid of the general theory developed by Kh. A. Rakhmatullin. The further development of the theory of multiphase media will make it possible to solve many scientific and technical problems of our times.

With the aid of the two-speed boundary layer theory, it was possible to determine friction laws for mixtures. Under the direction of Kh. A. Rakhmatullin, extensive studies have been started on such urgent

and contemporary problems as explosions in water-saturated sands, and also on problems concerned with porous cooling methods.

#### 4. Problems Concerning the Design of a Cotton-Harvesting Machine

The solution of the problem concerning the mechanization of cotton picking operations is of major importance for the Uzbek SSR, which is the main cotton-producing region in the USSR.

Prof. Kh. A. Rakhmatullin was one of the initiators calling for the creation of a laboratory of aerodynamics, under the Academy of Sciences Uzbek SSR, for conducting work on problems associated with the design of pneumatic cotton pickers. He has provided a basis for solving theoretical problems associated with the picking of crude cotton from small open boxes and cotton pneumatic transport machinery, which makes it possible to adopt a closed type of pneumatic cotton picker, and has also suggested new principles for utilizing an air flow. Such, for example, are his ideas of a pulsator and his idea of designing suction-pressure pneumatic cotton picking drying machines.

\* \* \* \*

For a number of years, as was already mentioned above, Kh. A. Rakhmatullin has been giving a course on gas dynamics, a course on plastic dynamics and a number of other optional courses at the Moscow State University. Upon his initiative, a chair of gas and wave dynamics, which he has been heading since it was first organized, has been set up in the mechanic-mathematical faculty of Moscow State University.

During the jubilee session of the Academy of Sciences USSR, at one of the meetings held by the Division of Technical Sciences, Academician L. S. Leybenzon paid particular attention to the work done by Kh. A. Rakhmatullin, and pointed out that his studies have anticipated to a considerable extent the results obtained by many foreign researchers. These brilliant studies were awarded the Stalin Prize and the Prize Imeni M. V. Lomonosov.

Prof. Rakhmatullin is one of those scientists who tackle and solve applied problems in the field of mechanics, by considering only their contemporary and scientific importance, and who disregard difficulties of a mathematical and experimental nature.

Scientists of Uzbekistan extend their congratulations to their dear hero of the day on his anniversary, and wish him further creative successes, good health and strength for promoting the successful development of Soviet science.

V. PROFESSOR V. N. ARKHANGEL'SKIY

Following is a translation of an unsigned article in Vestnik Oftalmologii (Herald of Ophthalmology), No. 5, 1957, pages 59-60.

Professor Vitaliy Nikolayevich Arkhangel'skiy, Corresponding Member of the Academy of Medical Sciences USSR and head of the chair for ocular diseases at the Moscow "Order of Lenin" Medical Institute Imeni I. M. Sechenov, is celebrating his 60th birthday and his 35 years of medical, pedagogical, scientific and public activity.

After graduating in 1922 from the medical faculty of the First Moscow State University, V. N. Arkhangel'skiy started to work in the clinic for ocular diseases of the Moscow "Order of Lenin" Medical Institute under the direction of Prof. V. P. Odintsov, serving successively as ordinator, assistant and docent of the chair.

In 1938, after defending his doctoral dissertation, V. N. Arkhangel'skiy was appointed head of the chair for ocular diseases at the Kuybyshev Medical Institute (reorganized in 1939 under the name of Military Medical Academy). After serving for 6 years in the Soviet Army, Vitaliy Nikolayevich was appointed in 1944 to the chair for ocular diseases of the Kiev Medical Institute. During his period of work in the Ukrainian SSR, he served as director of an ophthalmological society, deputy editor of the "Ukrainian Ophthalmological Journal", and as chief ophthalmologist in the Ministry of Public Health of the Ukrainian SSR.

In 1953, upon the recommendation of the Ministry of Public Health USSR, Vitaliy Nikolayevich was transferred to Moscow, where he served as director of the Institute for Ocular Diseases Imeni Gel'mgol'ts (Helmholtz) and was selected by competition as head of the chair for ocular diseases of the First Moscow "Order of Lenin" Medical Institute.

An outstanding ophthalmologist and an excellent clinician and surgeon, Vitaliy Nikolayevich introduced a number of proposals of great value in public health practice: in 1929, for the first time in the world, he recommended the use of blood transfusion in the treatment of ocular diseases; in 1943, he proposed a method, developed by him, involving a hermetic sealing of an operational section during eye operations in which the anterior ocular chamber is dissected (opened); in 1952, he proposed a method for preventing relapses following the operation of lacrimal sac anastomosis; in 1955, an operation involving the diathermocoagulation of the iris neoplasm; in 1957, a new operation during glaucoma (diathermocoagulation of the ciliary body).

All his life, Vitaliy Nikolayevich has been studying a number of important theoretical problems. As a pupil of V. P. Odintsov, he has devoted a great deal of attention and effort to the pathological anatomy of the eye. He has published a manual entitled "Microscopic Techniques for Ophthalmologists". A large number of his scientific studies is asso-

ciated with a clarification of the pathological and anatomical nature of clinical processes (congenital syphilis, 1929; leukemia, 1932; avitaminoses, 1932-1935; hypertonic disease, 1940; diseases of the retina, ciliary body, etc.) In recent years, on the basis of a study of problems related to the structure and function of the retina, Vitaliy Nikolayevich was able to establish the presence of an intermediate substance in the retina, and showed that this substance is closely associated with changes in the function of the retina.

Vitaliy Nikolayevich has published over 90 scientific articles and publications.

During his 35 years of teaching activity, he has trained large numbers of physicians, young ophthalmological specialists and instructors working at various institutes.

For the benefit of physicians engaged in general practice, Vitaliy Nikolayevich has written a manual entitled "Eye Diseases", which was published in 3 editions.

Vitaliy Nikolayevich is the editor-in-chief of the journal "Vestnik Oftalmologii" (Herald of Ophthalmology), of the "Medical Abstract Journal", and of an extensive handbook, published in several volumes, entitled "Eye Diseases".

Vitaliy Nikolayevich has been selected as an honorary member of the Ophthalmological Society of the Kiev Oblast', member of the administration board of the all-Union and Moscow Ophthalmological Societies, and in November 1956, he was elected chairman of the newly organized All-Russian Society of Ophthalmologists. Vitaliy Nikolayevich is also a member of a board of experts in the Higher Certification Commission (VAK - Vysshaya attestatsionnaya komissiya).

The great merits of Prof. V. N. Arkhangel'skiy in the public health field have been highly appraised by the Soviet Government, which has awarded him the Order of Lenin.

The editorial board of the journal "Herald of Ophthalmology" congratulates Vitaliy Nikolayevich on his anniversary and wishes him many more years of successful productive work aimed at the benefit of Soviet ophthalmology.

## VI. NIKOLAY NIKOLAYEVICH DOBROKHOTOV

(On His 70th Birthday)

Following is a translation of an unsigned article in Izvestiya Vysshikh Uchebnykh Zavedeniy, Chernaya Metallurgiya (News of Higher Educational Establishments, Ferrous Metallurgy), No. 2, 1959, pages 3-5.<sup>7</sup>

The widely known metallurgist, Academician Nikolay Nikolayevich Dobrokhotoy, celebrated his 70th birthday and his 45 years of industrial and scientific activity in March of this year.

N. N. Dobrokhotoy is a scientist of great erudition. He has been devoting a large amount of time not only to problems related to the theory of metallurgical processes and the metallurgy of steel, but also to the theory and design of flame (reverberatory) furnaces, to the theory of drying operations and the design of new types of drying equipment, to the theory of fuel combustion and gasification, the design of furnace and gas generator equipment, the design of new machinery for the direct reduction of ores to iron, and other problems.

At the time when N. N. Dobrokhotoy began to work in his special field, the majority of Martin furnaces operated on generator gas; no scientifically based methods for the production of such a gas were known at that time. In 1922, N. N. Dobrokhotoy published his first study, entitled "Calculation of Gas Generators and of the Generator Process", in which he described simple and well-founded rules for calculating the amount and composition of products obtained in the dry distillation of fuel. Later, together with his students, he conducted a large number of studies on the gasification of solid fuels, pointed out the principal methods for improving the operation of gas generators and for utilizing various grades of solid fuels.

In a number of his articles, N. N. Dobrokhotoy noted the erroneous nature of the basic concepts of the "hydraulic" furnace theory, such as fuel combustion laws, heat transfer, movement of gases in the furnace, rules for designing furnaces, and established the fundamental concepts of a new theory, namely the theory of flame (reverberatory) furnaces. On the basis of his design projects, furnaces were built in rolling mills of several Ural plants; atmospheric gas burners for foundry driers were built, as well as a powerful oil burner (designed in collaboration with I. G. Kazantsev), which is widely used in Soviet Martin (open-hearth) furnaces; a powerful tunnel furnace for calcining building ceramic materials, the first one of its kind in the Ukraine, was designed and built at the Kiev Block Plant; original designs have been worked out for building new furnaces used in the magnetizing roasting of iron ores, such as shaft furnaces for roasting Krivoy Rog quartzites, boiling layer reactors for roasting Kerch iron ores and pulverized Krivoy Rog ores.



N. N. Dobrokhotov has conducted a number of studies dealing with the theory of heating steel products in furnaces, and has calculated the temperature and structural stresses arising during the heating process. His studies involving the determination of the permissible heating rate of steel products in furnaces have resulted in a radical alteration of the concepts held in connection with this problem at that time. On the basis of a combination of laws concerning the heat transmission and resistance of materials, and on the basis of experimental studies, N. N. Dobrokhotov was able to prove that it is possible to considerably speed up the heating of articles in furnaces without affecting their quality.

Together with his pupils and colleagues, N. N. Dobrokhotov performed a number of studies concerned with the theory of drying and calcining ceramic articles, which are described in his textbook "Furnaces and Driers Used in the Silicate Industry".

In his book "Theory of Diffusion Processes", N. N. Dobrokhotov presented a general theory of physical-chemical diffusion processes, which makes it possible to calculate the combustion rates of solid fuels, the length of the combustion flare of gas streams, the drying rate of articles as a function of their thickness and stream velocity, and other processes.

Academician Dobrokhotov has conducted a large number of valuable research studies connected with problems of steel metallurgy.

Of great importance is his work concerned with the application of chemical thermodynamics and the electrolytic theory of slags in explaining the nature of steel smelting processes.

For a period of 40 years, N. N. Dobrokhotov has been working on problems concerned with the technology of steel smelting and reduction (pickling), primarily in Martin furnaces. During this time, he has performed and published a large volume of research work involving the calculation of open-hearth furnace charges, the oxidation capacity of open-hearth furnaces, the distribution of phosphorus and manganese in the slag and in the metal, the reduction (pickling) of steel, the liberation of gases from liquid steel, and the improvement of the quality of rimmed steel billets. He has published a number of articles dealing with the preliminary blowing-out of liquid cast iron in a mixer, the uselessness of manganese in the steel smelting process, the reduction of steel by aluminum in molds, the burning-out regime of carbon, the slag regime in the open-hearth process, and with other problems.

With the direct participation of N. N. Dobrokhotov, a new technology of steel smelting in open-hearth furnaces was developed, which made it possible to smelt on a large scale and at low cost a high-quality grade of steel in standard basic open-hearth furnaces. This new technology differs in many respects from the previous standard technology, and is presently used on a wide scale in many plants.

On the basis of experimental and theoretical studies, N. N. Dobrokhotov was able to prove that the higher is the temperature of the metal during the pouring (teeming) operation, the better is the quality of the metal. He has published articles calling for an increase in the reserve

weight (rezves) of billets, and for a higher rate (speed) of pouring (teeming).

For over 30 years, N. N. Dobrokhotoy has been engaged in experimental studies of the design and thermal operation of open-hearth furnaces. In earlier years, urgent problems involved the compulsory introduction of air by means of a fan into Martin furnaces, the reduction of the amount of cold air sucked into the furnace through non-airtight furnace sections, and the study of gas movements in the smelting section of the furnace. The installation of unarched charge holes in the front wall of open-hearth furnaces was introduced for the first time in the USSR upon the recommendation and under the direction of N. N. Dobrokhotoy. He has also proposed and tested the injection of compressed air into the furnace head, in order to increase the kinetic energy and the average mass velocity of the flame in the smelting section of furnaces. Such a method for introducing compressed air has presently found a wide field of application in many plants.

N. N. Dobrokhotoy has always been a supporter of new ideas, and has always been himself an initiator of all modern and progressive improvements. He has been and continues to be an implacable foe of sluggishness and routine in the fields of science and technology. Up to the present time, N. N. Dobrokhotoy has maintained extensive contacts with his numerous pupils. His tireless working ability, energy and neatness constitute a valuable example for many people.

The important and extensive scientific activity displayed by Academician N. N. Dobrokhotoy represents a significant contribution to the development of our metallurgical industry. On the 70th anniversary of the oldest metallurgical scientist in our country, we extend to him our hearty wishes for a good health and for further successful realization of his new ideas and undertakings.



## VII. IN HONOR OF ACADEMICIAN N. N. BOGOLYUBOV

Following is a translation of an unsigned article in Vestnik Akademii Nauk USSR (Herald of the Academy of Sciences USSR) No. 12, 1959, pages 87-88

A broadened session of the scientific council of the Mathematical Institute Imeni V. A. Steklov of the Academy of Sciences USSR, held on 24 September, celebrated the 50th birthday and the 35 years of scientific activity of Academician Nikolay Nikolayvich Bogolyubov, an outstanding Soviet scientist in the field of mathematics and theoretical physics. Scientific workers from the Mathematical Institute and the Computer Center of the Academy of Sciences USSR, the Joint Institute for Nuclear Studies, Moscow University and other scientific establishments, assembled in the conference hall. The participants at the conference also included scientists from Satellite countries, working at the Joint Institute for Nuclear Research at Dubna.

In his introductory speech, Academician I. M. Vinogradov described the scientific and public activities of the hero of the day.

N. N. Bogolyubov is the author of over 150 scientific publications, on the basis of which he has won world-wide fame. Of particular importance are his fundamental studies in the field of nonlinear oscillations. He has developed a new branch of mathematical physics known as nonlinear mechanics. The asymptotic methods of nonlinear mechanics developed by this scientist were found to be extremely useful, and are widely used in a great variety of technical fields. He was able to devise a number of very subtle and effective methods for the approximate solution of differential equations in nonlinear oscillatory systems. The studies conducted by N. N. Bogolyubov in connection with the establishment of methods in the field of nonlinear mechanics have exerted a profound effect on the development of an abstract theory of dynamic systems.

In the field of statistical physics, N. N. Bogolyubov has developed a method involving the use of distribution functions, with the aid of which it is possible to study kinetic problems from the general standpoint of the dynamic theory. His study of gas kinetic equations of the Boltzmann type has won world-wide fame, and may justly be considered as the most outstanding research work in the world in this scientific field.

The work done by N. N. Bogolyubov in the field of quantum statistics is of fundamental importance for the development of this particular branch of theoretical physics. Particular attention should be given at this point to the outstanding results obtained by him in connection with the theory of nonideal quantum gases, which culminated in the development of the superfluidity and superconductivity theory. The methods developed by N. N. Bogolyubov in the field of quantum statistics are also widely used in such an important branch of physics as the theory of a solid body.

The studies conducted by N. N. Bogolyubov on the quantum field

theory have been generally acknowledged. He has outlined the main physical principles upon which this theory is based, and he has provided a strict mathematical substantiation for the methods used in overcoming difficulties in presently available theories. Particularly important are his studies concerned with a strict confirmation of the so-called dispersion relations, which allow a direct experimental check of the basic concepts of the modern quantum field theory.

N. N. Bogolyubov devotes a large amount of his time to the training and education of scientific cadres. He has organized a school of nonlinear mechanics in Kiev and a school of theoretical physics in Moscow.

During the entire course of his active life, N. N. Bogolyubov has been engaged in intensive scientific and administrative work. For a long time, he directed a number of departments in the Academy of Sciences of the Ukrainian SSR, served as head of several chairs at the Kiev and Moscow Universities, and for a period of 4 years served as dean of the mechanic-mathematical faculty of Kiev University. At present, N. N. Bogolyubov is head of the section for theoretical physics at the Mathematical Institute, head of the laboratory for theoretical physics at the Joint Institute for Nuclear Research, and head of the chair for theoretical mechanics and statistical physics of the Moscow University.

In addition to being a Lenin and Stalin Prize laureate, N. N. Bogolyubov has been awarded two Orders of Lenin, the Order of the Red Banner of Labor, the Honor Badge (Znak Pocheta), and a medal "for outstanding work".

Greeting addresses were presented at the conference by the Presidium and the Division of Physical-Mathematical Sciences of the Academy of Sciences USSR, by the Academy of Sciences Ukrainian SSR, by the Ministry of Higher and Secondary Education USSR, and by the Mathematical Institute of Moscow University.

Academician P. S. Aleksandrov made a speech in which he transmitted the oral greetings of the Moscow Mathematical Society.

Numerous congratulatory telegrams sent by scientific establishments and individual scientists were addressed to the hero of the day.

In his acknowledging speech, N. N. Bogolyubov expressed his thanks to the participants at the conference and to those persons who had sent their greetings, and stated that he is devoting all his strength and knowledge to the development of Soviet science.

### VIII. BORIS PAVLOVICH SERGIYEVSKIY

Following is a translation of an unsigned article in Izvestiya Vysshikh Uchebnykh Zavedeniy, Chernaya Metallurgiya (News of Higher Educational Establishments, Ferrous Metallurgy), No. 3, 1959, pages 3-4.

In April 1959, the well-known metallurgist and foundryman Boris Pavlovich Sergiyevskiy is celebrating his 70th birthday and his 40 years of industrial and scientific activity.

Great labor achievements mark the life of this scientist, founder of the first chair for foundry production in a metallurgical faculty set up in the Soviet Union.

After graduating from the Leningrad Mining Institute in 1917, B. P. Sergiyevskiy worked as deputy chief of the Martin (open-hearth) furnace shop at the Verkh-Isetsk Plant, and later as chief of the open-hearth and foundry shops and as chief metallurgist of this plant. At the same time, he served as an instructor in a course on foundry production at the Ural State University.

In 1923, Boris Pavlovich was transferred to a permanent post at the Ural Polytechnic Institute, where he set up a chair for foundry production attached to the metallurgical faculty, the first one of this kind in the USSR. Prior to this time, such chairs existed only in machine building and mechanical faculties. Since 1928, foundry engineers with a metallurgical background were trained at this chair, organized by B. P. Sergiyevskiy.

In later years, B. P. Sergiyevskiy frequently had the opportunity to justify the necessity of training foundrymen with a metallurgical background. Actual practice confirmed the correct nature of the valuable initiative displayed by this scientist and pedagogue.

For a number of years, while serving as head of the chair for foundry production at the Ural Polytechnic Institute, B. P. Sergiyevskiy worked as a consultant with various large industrial and planning enterprises, such as Uralsmashzavod (Ural Heavy Machinery Plant), Uralgipromash (Ural State Institute for the Design and Planning of Metalworking and Machine Building Plants), etc.

Since 1939, B. P. Sergiyevskiy has been working in Stalinsk as head of the chair for foundry production at the Siberian Metallurgical Institute. In addition to his extensive pedagogical and scientific work at this institute, he provides constant scientific and technical assistance to the Kuznetsk Metallurgical Combine and to other plants in the Novosibirsk and Kemerovo oblast's.

B. P. Sergiyevskiy has conducted a large number of scientific-research studies. During his 40 years of pedagogical and scientific activity, he has trained thousands of foundrymen and metallurgists, who are successfully employed in the metallurgical and machine building industries.

We extend to B. P. Sergiyevskiy our best wishes for good health and a long life, and hope that he will be able to score further achievements in foundry production work.

IX. BORIS ALEKSEYEVICH DOLGO-SABUROV

Following is a translation of an unsigned article in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, pages 712-713.

Born in 1900. Outstanding Soviet anatomist, corresponding member of the Academy of Medical Sciences USSR. In 1925, graduated from the Military Medical Academy. Started his scientific work already as a student at the Military Medical Academy in 1922, under the direction of V. N. Tonkov. Headed chairs for normal anatomy at the Third Leningrad Medical Institute (1937-1940) and at the Naval Medical Academy (1940-1950); since 1950, serves as head of the chair for normal anatomy at the Military Medical "Order of Lenin" Academy Imeni S. M. Kirov. D-S. has published over 100 scientific works concerned with problems of functional morphology. Has conducted numerous anatomical studies of the plasticity of arteries and veins under conditions of collateral blood circulation. While studying interneuronal interruptions in the vagus nerve, D-S. was able to detect for the first time pericellular apparatuses, and represented the vagus nerve trunk as a system of heterogenic conductors. In collaboration with a staff of colleagues and pupils, D-S. made a substantial contribution to the study of the afferent innervation of veins. In 1953, he published new data concerning neurovascular relations in the central nervous system: he discovered synaptic structures (formations) on sanguiferous (blood-carrying) capillaries surrounding nerve cells.

Works Published by D-S.

1. "Die Potentiellen Eigenschaften der Arterien der Vorderen Extremität bei Tieren Unter den Bedingungen des Experiments", Z Anat.Entwgesch. Vol. 96, 1931, p 119.
2. "Anastomoses and Collateral Circulation Tracts in Man", Leningrad, 1956.
3. "The Neuron Theory as the Basis of Modern Concepts Concerning the Structure and Function of the Nervous System", Leningrad, 1956.
4. "Innervation of Veins", Leningrad, 1958.

X. YULIYA FOMINICHNA DOMBROVSKAYA

Following is a translation of an article by Ye. Kovaleva in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, pages 743-744.

Born in 1890. Outstanding Soviet pediatrician, active member of the Academy of Medical Sciences USSR. Completed her medical education in St. Petersburg in 1913. In 1916, worked in the clinic for child diseases attached to the medical faculty of Moscow University. In 1936, D. defended a doctoral dissertation on the subject of pneumonia in children. Since 1936, served as professor in the chair for child diseases at the First Moscow "Order of Lenin" Medical Institute, and since 1950 has been head of this chair.

D. has published over 100 scientific works, most of which are concerned with the study of problems related to pneumonia in children. She was the first one to publish in the Russian specialized literature data showing the effect exerted by age on the production of specific antibodies during pneumonia. In a monograph describing the role of vitamins in pediatrics (1948), she demonstrated the effect of vitamins in the physiology and pathology of childhood. During World War II, D. and her colleagues studied peculiar features of wartime pathology in children living in regions temporarily occupied by the enemy and under blockade conditions. She was the first Soviet pediatrician who gave a description of wartime nephritis in children.

From the very first days of Soviet rule, D. was actively engaged in the organization of child consultations, nurseries and children's homes.

Works Published by D.

1. "Pneumonia in Children", Dissertation, Moscow, 1936.
2. "Vitamins in Pediatrics", Moscow, 1948.
3. "Propedeutics of Child Diseases" (in collaboration with other authors) Moscow, 1953.
4. "Pneumonias of Early Childhood", Moscow, 1955.
5. "Diseases of Respiratory Organs in Children", Moscow, 1957.

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1. "Active Member of the Academy of Medical Sciences USSR Yu. F. Dombrovskaya", Pediatrica (Pediatrics), No. 6, 1956, p 84.
2. Kovaleva, Ye. V., Semenova, V. N. "On Some Results of the Work Done by the Chair for Child Diseases of the First Moscow "Order of Lenin" Medical Institute Imeni I. M. Sechenov", Voprosy okhrany materinstva i detstva (Problems Concerned With the Protection of Mothers and Children), Vol. 2, No. 5, 1957.

## XI. VIKTOR GRIGOR'YEVICH DROBOT'KO

Following is a translation of an unsigned article in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia)  
Vol. 9, 1959, pages 791-792.

Born in 1885. Well-known Soviet microbiologist, active member of the Academy of Sciences Ukrainian SSR. In 1913, graduated from the medical faculty of Kiev University. Since 1931, served as head of the section for medical microbiology at the Microbiology Institute Imeni D. K. Zabolotnyy of the Academy of Sciences Ukrainian SSR; since 1944, as director of this institute.

D's research work covers a wide range of problems in the chemotherapeutic field, in the search for antibiotics, study of metabolism in microorganisms, the problem of variability, bacteriophagia, tuberculosis, rhinoscleroma, intestinal infections. Under his direction and direct participation, a study has been made of the etiology of a formerly unknown disease, occurring in humans and horses, known as stachibotriotoxicosis; measures for combating this disease have been developed, which resulted in its complete liquidation in the Ukraine between 1938 and 1939. D. is the discoverer of Imanin, a preparation which is being used successfully in surgical and otolaryngological practice for the treatment of purulent processes. D. has developed methods for the differential staining of microorganisms, synthetic nutrient media, and has designed a convenient and simple filter used in phage operations. D. is the author of over 110 scientific works. D. is chairman of the Administration Board of the Ukrainian Society of Microbiologists, Epidemiologists and Infectious Disease Specialists.

### Works Published by D.

1. "A New Fungus Disease of Horses and Humans (Stachibotriotoxicosis)" Collected Articles, edited by D., Kiev, 1949.
2. "Modern Chemotherapy of Infectious Diseases", Kiev, 1949.

### Bibliography

1. "Viktor Grigorovich Drobot'ko", Mikrobiologicheskii Zhurnal (in Ukrainian) (Microbiological Journal), Vol. 17, No. 4, 1955, p 3.
2. Kleyn, B. I., "Viktor Grigor'yevich Drobot'ko (On his 70th Birthday)", Vrachebnoye Delo (Physician's Affairs), No. 1, 1956, p 101.



## XII. BORIS GRIGOR'YEVICH YEGOROV

Following is a translation of an article by A. Arendt in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, page 989.

Born in 1892. Prominent Soviet neurosurgeon, active member of the Academy of Medical Sciences USSR.

Graduated from the medical faculty of Moscow University in 1916. For a number of years, worked under A. V. Martynov, N. A. Gertsen and N. N. Burdenko. In 1929, he started to work in the field of surgery of the nervous system. At the Institute of Neurosurgery Imeni N. N. Burdenko, he worked his way up from assistant to director of the institute (since 1947).

Y. has written over 80 scientific articles and has published a monograph dealing with neurinoma of the 8th pair of nerves. Under his editorship, a number of collected works on neurosurgery were published, such as the transactions of annual conferences in memory of Burdenko and the 20th volume of the work entitled "Experience of Soviet Medicine During the Great Patriotic War of 1941-1945", concerned with a description of wounds of the peripheral nervous system.

Of particular interest are the studies conducted by Y. on problems dealing with the plastic surgery of the dura mater, the resection of brain and cerebellum lobes allowing the approach and radical removal of brain tumors, and the total removal of brain abscesses. He has developed and proposed the use of various operative methods for removing and localizing different types of brain tumors, and methods used in operations dealing with neuralgia of the trigeminal nerve. He serves as co-editor of the section dealing with neurosurgery in the "Great Medical Encyclopedia".

### Works Published by Y.

1. "Methods for the Surgical Treatment of Neurinomas of the Acoustic Nerve and Their Anatomical Basis", dissertation, Moscow, 1945.
2. "Neurinoma of the 8th Nerve", Moscow, 1949 (Bibliography).
3. "Surgical Treatment of Arachnoidal Endotheliomas, Located in the Region of the Tuberculum Sellae Turcicae", Voprosy Nevrokhirurgii (Problems of Neurosurgery), Vol. 14, No. 3, 1950, p 12.
4. "Experience of Soviet Medicine During the Great Patriotic War of 1941-1945", Vol. 20, Moscow, 1952 (several articles).
5. "On the Physiological Substantiation of Neurosurgical Operations", Moscow, 1954 (as editor).
6. "The Problem of the Trauma of the Central Nervous System", Vestnik AMN USSR (Herald of the Academy of Medical Sciences USSR), No. 4, 1957 p 20.

### Bibliography

"Prof. B. G. Yegorov and His Creative Life (On his 60th Birthday)", Voprosy Nevrokhirurgii (Problems of Neurosurgery), Vol. 17, No. 1, 1953, p. 53.



### XIII. NIKOLAY NIKOLAYEVICH YELANSKIY

Following is a translation of an article by M. Kuzin in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, pages 993-994.

Born in 1894, Prominent Soviet surgeon, Honored Scientist, Stalin Prize laureate, General-Lieutenant in the Medical Corps.

Graduated from the Military Medical Academy in 1917. In 1921, worked in the faculty surgical clinic of the Academy under S. P. Fedorov. In 1924, defended a doctoral dissertation on the subject: "Relationship Between Stomach Ulcers and Stomach Cancer". In 1934, was appointed head of the chair for faculty surgery at the Leningrad Pediatric Medical Institute. At the same time, since 1937, headed the chair of general surgery, and since 1938, the chair for military field surgery at the Military Medical Academy. In 1939-1940, he took an active part in organizing and providing surgical help to wounded military personnel during the action against Japanese troops on the Khalkhin-Gol River and during the Russo-Finnish War.

During World War II, Y. served as surgeon at the front. From 1946 to 1947, he served as head of the chair for general surgery at the Military Medical Academy. Since 1947, he has served as chief surgeon of the Soviet Army and head of the chair for faculty surgery at the First Moscow "Order of Lenin" Medical Institute, which he is heading at the present time.

Y. is the author of over 110 studies concerned with various problems dealing with military field surgery, blood transfusion, urology, surgery of the esophagus, stomach, liver and biliary tract, and with the surgical use of antibiotics and traumatology.

He has prepared (for the first time in the USSR) standard sera used in the determination of blood groups (1921). Y. is the author of the first Soviet monograph dealing with blood transfusion (1925), which played an important role in the development and improvement of blood transfusion methods in the USSR.

The experience gained in connection with the treatment of gun-shot bone fractures, acquired by Y. during the war, was summarized in a work entitled "Experience of Soviet Medicine During the Great Patriotic War of 1941-1945".

Y. presented a corticoorganic theory of the pathogenesis of endarteritis obliterans, and has proposed an original method for treating this disease, which involves the intraarterial injection of novocain; he has also developed a method for treating open infected bone fractures by means of an osteosynthesis with the aid of a perforated nail-cannula especially designed by him. Y. has also developed and substantiated methods involving the local use of antibiotics in wounds and suppurative processes.

Y. is co-editor of the surgery section in the Great Medical Encyclopedia.

#### Works Published by Y.

1. "On the Malignant Degeneration of Stomach Ulcers", Trudy 15-go sezda ros. khir. (Transactions of the 15th Congress of Russian Surgeon) p 101, Pg (?), 1923.
2. "Blood Transfusion", Moscow-Leningrad, 1926.
3. "Periodische Tätigkeit des Magens bei chirurgischen Magen-und Zwölffingerdarmkrankungen vor und nach der Operation", Arch. klin. Chir., Vol. 158, 1930, p 113.
4. "Military Field Surgery", Moscow-Leningrad, 1941; Moscow, 1950.
5. "On the Traumatic Toxicosis Taking Place During Massive Closed Injuries of Soft Tissues", Khirurgiya (Surgery), No. 1, 1950, p 3.
6. "Intra-Osseous Metallic Osteosynthesis (Intramedullary Nailing) in Open Infected Fractures", Ibid, No. 8, 1953, p 15.
7. "Physiological Fundamentals of Modern Surgery", Trudy 26-go Vsesoyuznogo S"ezda Khirurgov (Transactions of the 26th All-Union Congress of Surgeons), Moscow, 1956, p 13.

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1. "Professor N. N. Yelanskiy (On his 60th Birthday)", Khirurgiya (Surgery), No. 2, 1955, p 82.
2. Rovnov, A. S., Kuzin, M. I. "Stalin Prize Laureate, General-Lieutenant in the Medical Corps N. N. Yelanskiy", Voyenno-Meditsinskiy Zhurnal (Military-Medical Journal), No. 7, 1952, p 3.

#### XIV. ALEKSANDR GRIGOR'YEVICH YELETSKIY

[Following is a translation of an article by A. Geselevich in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol 9, 1959, pages 1008-1009.]

Born in 1884. Prominent Soviet orthopedist. Graduated in 1911 from the medical faculty of Khar'kov University, and then worked under S. I. Spasokukotskiy and V. I. Razumovskiy at the chair of operative surgery of Saratov University (from 1911 to 1914, and from 1918 to 1932).

Since 1925, served as head of this chair. Since 1932, served as head of the chair for orthopedics and traumatology at the Kiev Medical Institute, and as head of the division of orthopedics and traumatology at the Kiev Orthopedic Institute. In 1924, Y. defended his doctoral dissertation on the subject of resection of radix posterior nervorum spinalium (spinal cord) as a method of treatment of spastic paralysis.

Y. has published over 40 scientific studies, which are mainly concerned with problems dealing with the restoration of the functions of the support and motor apparatus after various diseases. He has published an article describing the innervation of the capsule and joint terminals of knee joint bones (1931), and a monograph describing spine diseases and injuries; he also published articles dealing with a study of the anatomical foundations of Forster's operation, the classification and results of treatment of gunshot hip fractures, the regeneration of bone tissue, etc. Y. has shown that, during pseudoarthroses, sclerosed bone terminals should not be resected, and has improved methods of operating old dislocations and ankyloses of the hip and shoulder joints.

##### Works Published by Y.

1. "Resection of the Radix Posterior Nervorum Spinalium as a Method for Treating Spastic Paralysis (Forster's Operation), Uchenyye zapiski Saratovskogo universiteta (Scientific Notes of Saratov University), Vol. 2, No. 1, 1924, p 307.
2. "On the Problem of Innervation of the Capsule and Joint Terminals of Knee Joint Bones", Vestnik Khirurgii (Herald of Surgery) Vol. 22 Books 65-66, 1931, p 74.
3. "Intra-Articular Injuries of Large Joints", Trudy 8-go s"ezda Khirurgov USSR (Transactions of the 8th Congress of Ukrainian Surgeons), Kiev, 1955, p 213.

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1. Novikov, N. V., "Professor A. G. Yeletskiy (On his 45th Anniversary of Medical, Scientific and Pedagogical Activity)", Ortopediya, Travmatologiya i Protezirovaniye (Orthopedics, Traumatology and Prosthesis Application), No. 4, 1956, p 71.

XV. ZINAIDA VISSARIONOVNA YERMOL'YEVA

Following is a translation of an article by N. Furer in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, page 1025.

Born in 1898. Prominent Soviet microbiologist, corresponding member of the Academy of Medical Sciences USSR, Stalin Prize laureate. In 1921, graduated from the medical faculty of the North Caucasian University at Rostov-on-the Don, and worked at the Microbiology Institute and at the microbiology chair of the university. In 1925, she organized a microbial biochemistry department at the Biochemical Institute Imeni A. N. Bakh in Moscow, which later was reorganized into the Institute of Antibiotics. Since 1952, she has been serving as head of the microbiology chair at the Central Institute of Postgraduate Medical Training and also as head of the chemotherapy department at the Institute of Antibiotics.

Y. is the author of over 150 scientific publications. She is one of the founders in our country of medical bacteriochemistry and of the theory of antibiotics. The principal studies performed by Y are concerned with a study of cholera, immunity and antibiotics. She has been able to isolate a luminescent cholera-like Vibrio from the human organism, and she has proposed the use of original differential-diagnostic methods for the identification of choleric and cholera-like Vibrios. Y. has also proposed the use of a number of bacteriophage preparations and the practical application of lysozyme.

In 1942, together with her associates, Y. obtained the first batch of Soviet penicillin, and was one of the pioneer group which helped set up plants for the production of antibiotics.

Y. has prepared a new antibiotic, known as ecmolin, and a number of new antibiotic preparations, such as streptomycin paraaminosalicylate, ecmonevocillin, novocillin, penicillin-ecmo, bicillin, and a number of antibiotics of the tetracycline series for intramuscular injection.

Works Published by Y.

1. "On Lysozyme", Zhurnal Mikrobiologii i Immuniteta (Journal of Microbiology and Immunity), Vol. 11, No. 4, 1933, page 683 (in collaboration with other authors).
2. "On Bacteriophage and Its Applications", Zhurnal Mikrobiologii, Epidemiologii i Immunologii (Journal of Microbiology, Epidemiology and Immunology), No. 9-10, 1939, p 6.
3. "Cholera", Moscow, 1942.
4. "Penicillin", Moscow, 1946.
5. "Study of Ecmolin During Experimental Influenza", Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii (Journal of Microbiology, Epidemiology and Immunobiology), No. 1, 1952, p 64 (in collaboration with other authors).
6. "Antibiotics and Their Clinical Application", Moscow, 1954.
7. "Development Trends of a Rational Antibiotic Therapy", Antibiotiki (Antibiotics), Vol. 2, No. 5, 1957, p 12.

XVI. VIKTOR MIKHAYLOVICH ZHDANOV

[Following is a translation of an article by I. Bezdenezhnykh in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, pages 1078-1079.]

Born in 1914. Well-known Soviet virologist, epidemiologist and public health administrator, corresponding member of the Academy of Medical Sciences USSR. Graduated from Khar'kov Medical Institute in 1936. From 1946 to 1951, served as head of the epidemiological and virological departments at the Khar'kov Institute of Epidemiology and Microbiology, and then as director of this institute and head of the epidemiology chair at the Khar'kov Institute for Post-graduate Medical Training. Since 1951, head of the Main Sanitary Epidemiological Administration, and since 1955, deputy minister of Public Health USSR and chief state sanitary inspector of the USSR. Since 1951, serves as head of the influenza department at the Institute of Virology of the Academy of Medical Sciences USSR, and as director of the epidemiology department at this institute.

Z. is the author of over 200 scientific publications, including 6 monographs. Of great interest are various studies conducted by Z. in connection with the etiology and epidemiology of Botkin's disease, which are summarized in a monograph and in a number of articles. As a result of extensive research work, Z. was able to prove, in 1948, the existence of lymphocytic choriomeningitis in our country, and solved a number of unclear problems related to the epidemiology of this infection. Together with his associates, Z. established the presence in the USSR of rickettsial pox and studied its epidemiological characteristics. Z. has also conducted original studies on the evolution and systematic occurrence of infectious diseases, and on the systematic classification and nomenclature of viruses. He has developed a virus determinant, which is the only one known at the present time in Soviet and world literature.

Of great importance is the work done by Z. in connection with problems dealing with the organization of a sanitary-epidemiological service and methods for preventing the spread of the most widely occurring infectious diseases.

Works Published by Z.

1. "Etiology and Epidemiology of Infectious Hepatitis", Dissertation, Khar'kov, 1947.
2. "Infectious Hepatitis (Botkin's Disease)", Khar'kov, 1948.
3. "On the Etiology and Epidemiology of Epidemic Rickettsiosis", *Vrachebnoye Delo* (Physician's Affairs), No. 10, 1950, p. 931 (in collaboration with other authors).
4. "Concerning the Problem of Neuroinfections" *Nevropatologiya i Psikiatriya* (Neuropathology and Psychiatry) Vol. 20, No. 2, 1951, p. 3.
5. "Human Contagious Diseases", Moscow, 1953.
6. "A Human and Animal Virus Determinant", Moscow, 1953.

7. "The Role of Rodents in the Epidemiology of Lymphocytic Choriomeningitis", in book: "Problems of Regional, General and Experimental Parasitology and Medical Zoology", edited by G. V. Vygodchikov, Vol. 8, p 122, Moscow, 1953.

XVII. DMITRIY ARKAD'YEVICH ZHDANOV

Following is a translation of an article by I. Izmaylova in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, pages 1079-1080.

Born in 1908. Prominent Soviet anatomist, corresponding member of the Academy of Medical Sciences USSR. Graduated from the medical faculty of Voronezh University in 1926. A pupil of the well-known anatomist G. M. Iosifov. Headed chairs of anatomy at the Gor'kiy Medical Institute (1935-1943), Tomsk Medical Institute (1943-1947), and Leningrad Sanitary Hygienic Medical Institute (1947-1956). Since 1956, has been heading the chair of anatomy at the First Moscow Medical Institute.

Zh. is the author of over 60 scientific publications, including 4 monographs on the anatomy of the human and animal lymphatic system, on the anatomy of the nervous system, on problems of teratogenesis, and on the history of Soviet and foreign anatomy. Zh. has systematically studied lymphatic vessels of bones, joints, muscles, tendons and fascias, as well as those of peripheral nerves; he has developed a roentgenographic method for studying the lymphatic system on corpses and live animals. Zh. was the first one to use a method involving the injection and roentgenography of the thoracic duct in a living human being.

In his monograph on the functional anatomy of the lymphatic system (1940), Zh. showed the inter-relationship between the structure and function of lymphatic vessels and lymph nodes, and provided an anatomical foundation to the problem of collateral lymph circulation.

Zh.'s textbook, describing the surgical anatomy of the thoracic duct and the principal lymphatic collectors and nodes of the trunk (1945), which was awarded the Stalin Prize, contains data showing age differences in the origin and topography of the thoracic duct and the correlation between individual features of lymphatic trunks and body structure.

Zh. has studied the fusion (merging) points and collateral paths of lymph circulation from various internal organs, and has reviewed the anatomy of the cutaneous lymphatic system. His monograph on the general anatomy and physiology of the lymphatic system (1952) lists the results of complex morpho-physiological studies of human lymphatic vessels and nodes.

Works Published by Zh.

1. "Lymphatic Vessels of the Human Talocrural, Knee and Hip Joints", Russkiy Arkhiv Anatomii, Gistologii i Embriologii (Russian Archives of Anatomy, Histology and Embryology), Vol. 9, No. 1, 1930, p 497.
2. "Röntgenologische Untersuchungsmethoden des Lymphgefäßsystems des Menschen und der Tiere", Fortschr. Röntgenstr., Vol. 46, 1932, p 680.
3. "Functional Anatomy of the Lymphatic System", Gor'kiy, 1940.
4. "Anatomy of the Thoracic Duct and of the Main Lymphatic Collectors in the Trunk of Humans and Mammals", Dissertation, Gor'kiy, 1941.



5. "Surgical Anatomy of the Thoracic Duct and of the Main Lymphatic Collectors in the Trunk", Gor'kiy, 1945.
6. "General Anatomy and Physiology of the Lymphatic System", Leningrad, 1952.
7. "Leonardo da Vinci as Anatomist", Moscow-Leningrad, 1955.
8. "Functional and Morphological Laws of the Architectonics and Histotopography of the Intraorganic Lymphatic System of Viscera", in book: "New Data on the Lymphatic System of Viscera", edited by D. A. Zhdanov, Moscow-Leningrad 1957, p 5.

XVIII. PETR DMITRIYEVICH GORIZONTOV

[Following is a translation of an article by I. Piontkovskiy in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, pages 10-11.]

Born in 1902. Prominent Soviet pathophysiologist, corresponding member of the Academy of Medical Sciences USSR. Graduated from the Omsk Medical Institute in 1927, and then did post-graduate training under A.A. Bogomolets. From 1934 to 1952, worked as assistant, docent and professor (since 1939) in the chair for pathological physiology at the First Moscow "Order of Lenin" Medical Institute. Since 1953, has been serving as head of the chair of pathological physiology at the Central Institute for Post-graduate Medical Training.

G. has published over 70 studies concerned with various problems in the field of pathology. In a series of experimental studies of hypertonia during pregnancy, G. came to the conclusion, inspite of the opinion expressed by Goldblyat, that hypertonia cannot be considered only as the result of a renal ischemia, and that a deficient blood circulation in any organ, including the placenta, may be accompanied by an increase in blood pressure (1950). This concept was later experimentally confirmed in studies conducted by collaborators of G. G. was the first one to perform a spectro-photometric study of brain and blood sterins under normal conditions and during experimental meningoencephalitis. These and other studies furnished a basis for the concept concerning the role of neuroglia in the synthesis of cholesterol (1940). G. as conducted research work involving the study of the pathophysiology of radiation injuries, has presented data which clarify the debatable question concerning the importance of toxemia in the development of certain symptoms of radiation sickness, and has proposed an original scheme for the pathogenetic action of ionizing radiation. At the Second International Conference sponsored by the United Nations Organization, G. presented a summary report dealing with the problem of pathogenesis of acute radiation sickness from a pathophysiological aspect. G. is the co-author of two training manuals.

G. is the chairman of the Board of the All-Union Society of Pathophysiologicals, and is a member of the editorial boards of a number of journals.

Works Published by G.

1. "The Role of the Brain in Cholesterol Metabolism", Moscow, 1940.
2. "The Significance of I. P. Pavlov's Work in the Physiology and Pathology of Blood Circulation", Moscow, 1949.
3. "Problems of Pathological Physiology in I. P. Pavlov's Works", Moscow, 1952.
4. "Pathological Physiology of Radiation Injuries", in book: "Radiation Medicine", edited by A. V. Lebedinskiy, Moscow, 1955, p 80.
5. "Pathogenesis of Radiation Sickness Caused by an External Ionizing Radiation", in book: "Pathological Physiology of Acute Radiation Sickness"

edited by P. D. Gorizontov, Moscow 1958, p 5.

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I. Piontkovskiy, "Petr Dmitriyevich Gorizontov (On His 50th Birthday)",  
Arkhir Patologii (Archives of Pathology), Vol. 14, No. 5, 1952.

# XIX. DAVID VLADIMIROVICH GORFIN

Following is a translation of an article by M. Barsukov in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, pages 84-85.

Born in 1889. Prominent organizer of the Soviet public health system. Graduated from the medical faculty of Saratov University in 1915. After the Great October Socialist Revolution, participated in the organization of the Soviet public health system in Kremenchug and Saratov. In 1918-1921, served in the Red Army, and then, until 1929, headed the section for general and special therapeutic assistance in the People's Commissariat of Public Health RSFSR. In 1929-1932, G. served as rector of Tomsk University and head of the chair of social hygiene. Since 1932, served as director of the Central Institute for Postgraduate Medical Training in Moscow, and at the same time headed the chair of social hygiene in the sanitary-hygienic faculty of the First Moscow Medical Institute. In 1945-1953, worked as professor in the chair for the organization of public health at the First Moscow Medical Institute. At present, G. is working at the Institute for the Organization of Public Health and History of Medicine Imeni N. A. Semashko.

G. is the author of about 150 scientific publications and reports presented at All-Union and All-Russian congresses, dealing with problems of social hygiene, and the organization and history of Soviet public health.

G. has worked on a number of important problems concerned with theoretical and practical aspects of Soviet public health, such as the organization and standardization of medical assistance, dispensary service and sanitary regulations.

## Works Published by G.

1. "Summary and Prospects of the Organization of Medical Service in Cities and the Status of Special Types of Medical Assistance", in book: "Medical Service in the RSFSR", Moscow, 1924, p 29.
2. "Protecting the Health of Peasants", in book: "Tenth Anniversary of the October Revolution and the Status of Soviet Medicine", edited by N. A. Semashko, Moscow, 1927, p 89.
3. "Zemstvo Medicine", Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 10, Moscow, 1929, p 620.
4. "Urban Medicine", Ibid. p. 638.
5. "Prophylactic Measures", Ibid. 1933, p 27, 542.
6. "Hospital Service During 20 Years of Soviet Public Health Practice" Sovetskaya Meditsina (Soviet Medicine), No. 14-15, 1938, p 65.
7. "Medical and Sanitary Laws in the Struggle to Achieve a Sanitary Welfare of the Population During the Years of the Great Patriotic War", in book: "Sanitary Aftereffects of the War and Measures for Their

- Liquidation", Moscow, 1947, p 230.
8. "Thirty Years of Soviet Public Health", Sovetskaya Meditsina (Soviet Medicine), No. 11, 1947.
  9. "On Methods Used in Dispensaries for Checking the Health of the Population", Sovetskoye Zdravookhraneniye (Soviet Public Health), No. 5, 1952, p 34.

## XX. ALEKSEY DMITRIYEVICH GREKOV

[Following is a translation of an article by Yu. Milenushkin in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol 9, 1959, pages 206-207.]

Born in 1873. Well-known Soviet microbiologist, honored scientist and "Hero of Labor".

Graduated from the Military-Medical Academy in 1897, and then worked as a military physician in Merv and Tashkent. In 1907, defended a doctoral dissertation on clinical observations of the effect exerted by Mechnikov's sour milk during intestinal diseases. Until 1917, G. served as chief physician of the Tashkent hospital. In 1918, he organized the Regional Bacteriological Institute (since 1953, known as the Tashkent Scientific-Research Institute of Vaccines and Sera), and served as director of this institute until 1931, and then as scientific director (1931-1940). Under his direction, over 200 scientific studies were performed at the institute, which were primarily concerned with problems of regional epidemiology. In 1920, G. was appointed professor in the chair of microbiology of the medical faculty of the Turkestan (now Tashkent) University. Since 1938, he served as head of the chair for microbiology at the Tashkent Institute for Postgraduate Medical Training.

G. took part in the liquidation and prevention of plague outbursts in Central Asia and Iran. He was the first one to establish the incidence of plague in sand mice, "peschanki" (*Arenaria*) (1912).

G. is the author of 34 scientific studies, which include research on the icteric-hemoglobinuria form of malaria. He has also worked on the problem concerning the possible immunization against cholera with the aid of cholera-like *Vibrios*.

G. was one of the first propagandizers (advocates) of dry varicellous detritus. Since 1926, G. has served as chief editor of the journal "Medical Thought of Uzbekistan". In 1925, G. organized the Society of Microbiologists of Uzbekistan, and served as chairman of this society for a number of years.

### Works Published by G.

1. "Clinical Observations of the Effect Exerted by I. I. Mechnikov's Sour Milk During Intestinal Diseases", Dissertation, St. Petersburg, 1907-1912.
2. "On the Stronger Effect Exerted by Smallpox Vaccine Following Its Passage (Conduction) Through Sheep", Gigiyena i Epidemiologiya (Hygiene and Epidemiology), No. 2, 1922, p 48.
3. "Historical Sketch of the Development of Epidemiology and Prophylaxis of Infectious Diseases in Central Asia", Sbornik nauchnykh trudov Tashkentskogo instituta usovershenstvovaniya vrachey (Collection of Scientific Works of the Tashkent Institute for Postgraduate Medical

Training), Vol. 2, 1952, p 215.

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1. "On the 30th Anniversary Jubilee of Prof. A. D. Grekov", Meditinskaya Mysl' Uzbekistana (Medical Thought of Uzbekistan), Vol. 2, No. 3, 1927-1928, p 5.
2. Semenov, G. "Aleksey Dmitriyevich Grekov", Ibid. p 7.
3. Khodukin, N. I. "Professor A. D. Grekov", Zhurnal Mikrobiologii, Epidemiologii i Immuniteta (Journal of Microbiology, Epidemiology and Immunity), No. 8, 1949, p 93.



XXI. ALEKSANDR MIKHAYLOVICH GRINSHTEYN

Following is a translation of an article by L. Soskin in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, pages 275, 276.]

Born in 1881. Outstanding Soviet neuropathologist, honored scientist, active member of the Academy of Medical Sciences USSR.

Graduated from the medical faculty of Moscow University in 1904. Since 1921, head of the chair of nervous diseases at the Voronezh Medical Institute, and later at the Khar'kov and Second Moscow Medical Institutes.

G. has published 135 scientific studies. In 1910, in a dissertation presenting data concerning the theory of the leading tracts of the striated body (corpus striatum), G. described the anatomical connections between the corpus striatum and the optic thalamus, the hypothalamus region, and the cerebral cortex, thereby opening up a new chapter in the theory of leading tracts. He was the first one to establish a number of topic symptoms during the injury of the hypothalamic region and the medulla oblongata.

While studying the problem of the sleep center (1923) on the basis of a clinical-anatomical study of epidemic encephalitis, G. demonstrated the role of the hypothalamic region in the sleep mechanism. G. was the first one in world literature (1925 and 1931) to show that injury to the hypothalamic region can give rise to a hunger sensation, both in the form of a stable sensation and in the form of an epileptic aura. While studying the mutual relationship between fat metabolism and the nervous system (1925), G. showed for the first time that general adiposis may be a symptom of injury of the medulla oblongata.

A number of studies performed by G. are devoted to problems of professional pathology. After conducting an experimental study of the effect exerted by carbon monoxide and manganese, G. established a very important fact, namely that the same toxic substance affects the same formations of the nervous system in different animals; the great variety of clinical symptoms observed in this connection is due to the fact that the same nervous formation performs a different functional role in different animals. In his experiments and clinical studies, dealing with a study of the cutaneous-vegetative semiotics of organic diseases of the nervous system and with vegetative disturbances of the cerebral cortex, G. followed a tonic-diagnostic trend in vegetology. G. has studied the role of the vegetative nervous system in the pathogenesis of causalalgias, reflector contractures, vascular syndromes (hypertonic disease, endarteritis obliterans). He provided a theoretical basis (1939) for the possibility of treating these syndromes by means of an operative intersection of sympathetic preganglionic fibers (preganglionic sympathectomy), and demonstrated the effectiveness of this method in those cases when the

conservative therapy of these afflictions remained unsuccessful. In 1945, G. was able to establish that, during hypertonic disease, the topography of headaches corresponds to vascularization zones of the arteries in the brain and in its membranes.

G. presented a general summary of the anatomical and physiological aspects of his research work in his monograph, entitled "Tracts and Centers of the Nervous System".

G. has published a textbook on nervous diseases in the Ukrainian language; he is also the author of chapters dealing with the anatomy, physiology and clinical aspects of the vegetative nervous system in a number of textbooks and manuals concerned with diseases of the nervous system.

#### Works Published by G.

1. "Data on the Theory of Leading Tracts of Corporis Striati", Dissertation, Moscow, 1910.
2. "Cutaneous-Visceral Semiotics of Organic Diseases of the Nervous System", Sovremennaya Psikhonevrologiya (Modern Psychoneurology), Vol. 6, No. 5-6, 1928, p 492.
3. "Localization of Trophic Functions in the Nervous System", Fiziologicheskii Zhurnal (Journal of Physiology), Vol. 21, No. 5-6, 1936, p 861.
4. "Tracts and Centers of the Nervous System", Moscow, 1946.
5. "Treatment of Vascular Diseases by Means of Operations on the Marginal Trunk", Trudy 3-go Vsesoyuznogo s"ezda nevropatologov i psikhiatrov (Transactions of the 3d All-Union Congress of Neuropathologists and Psychiatrists), Moscow 1950, p 297 (in collaboration with other authors).
6. "The Problem of the Dynamic Localization of Functions Under Experimental and Clinical Conditions", Zhurnal Nevropatologii i Psikiatrii (Journal of Neuropathology and Psychiatry), Vol. 56, No. 12, 1956, p 949.

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1. "A. M. Grinshteyn (On His 75th Birthday)", Zhurnal Nevropatologii i Psikiatrii (Journal of Neuropathology and Psychiatry), Vol. 57, No. 3, 1957, p 413.
2. "Problems of Clinical and Experimental Neuropathology and Psychiatry", Jubilee Collection in Honor of A. M. Grinshteyn, Khar'kov, 1936.

XXII. LEV VASIL'YEVICH GROMASHEVSKIY

[Following is a translation of an article by V. Rozhdestvenskiy in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, pages 327-328.]

Born in 1887. Prominent Soviet epidemiologist, active member of the Academy of Medical Sciences USSR.

In 1904, he enrolled in the physical-mathematical faculty of Novorossiysk University (Odessa). In 1905, transferred to the medical faculty. Took part in the activities of revolutionary student groups.

In 1908, G. was arrested for taking part in revolutionary activities, and in 1910, he was sentenced to 3 years exile in Arkhangel'sk province. His exile sentence was later changed to an order dispatching him to Manchuria to help fight an epidemic of plague. In 1911, G. was engaged in a study of plague in Mongolia. In 1912, he was awarded the title of "physician with excellent marks".

In 1918-1927, G. worked in Odessa first as head of a disinfection station, and then as director of Gubzdrav (Provincial Public Health Department); he also served as head of the epidemiology chair at the medical institute and then as rector of the institute. In 1928-1931, G. was director of the Dnepropetrovsk Sanitary Bacteriological Institute. In 1928, he organized a chair of epidemiology in Dnepropetrovsk. From 1931 to 1948, he headed the chair of epidemiology at the Central Institute for Postgraduate Medical Training. In 1941-1942, he served as chief epidemiologist on the Trans-Caucasian front, and then of the Moscow Military District. In 1948-1951, G. directed the Institute of Infectious Diseases of the Academy of Medical Sciences USSR in Kiev, and since 1951, has been head of the epidemiology chair at the Kiev Medical Institute.

G. has published over 120 scientific studies. Most widely known are the studies conducted by G. in connection with the epidemiology of exanthematous fever. In his studies on the epidemiology of cholera, typhus abdominalis and dysentery, G. established the role of flies as carriers of the stimulants of intestinal infections, and discovered a number of causes responsible for the seasonal increase in the incidence of these infections. He has also worked on scientific-administrative problems dealing with disinfection matters in the USSR. In 1941, G. published his textbook on general epidemiology, which was later republished in 1943 and 1949. In 1947, in collaboration with G. M. Vayndrakh, G. published a textbook on specific epidemiology.

Works Published by G.

1. "On the Epidemiology of Cholera", in book: "Cholera in Odessa in 1918-1922", edited by L. V. Gromashevskiy, Vol. 2, Odessa, 1929, p. 49.
2. "Typhus Abdominalis in the Donbas in 1929", Sovetskiy Vrach (Soviet Physician), No. 9, 1930, p. 457.
3. "On the Epidemiology of Exanthematous Fever", Zhurnal Mikrobiologii Epidemiologii i Immunologii (Journal of Microbiology, Epidemiology and Immunology), No. 7-8, 1939, p. 19.

4. "Results of a Study for the Presence of a Virus Among Lice in Foci of Exanthematous Fever", Ibid., No. 9-10, p 81 (in collaboration with T. M. Brun).
5. "Results of an Experimental Study of the Role of Lice as Transmitters of Exanthematous Fever", in book: "Conference on Problems of Parasitology", published by the Academy of Medical Sciences USSR, Moscow-Leningrad, 1939, p 52.
6. "On the Frequency of Exanthematous Fever Relapses", Zhurnal Mikrobiologii, Epidemiologii i Immunologii (Journal of Microbiology, Epidemiology and Immunology), No. 4, 1941, p 48 (in collaboration with N. R. Stepanov).
7. "Principle for the Classification of Infectious Diseases", Vestnik AMN SSSR (Herald of the Academy of Medical Sciences USSR), No. 4, 1947, p 11.
8. "Specific Epidemiology", Moscow, 1947, (in collaboration with G. M. Vayndrakh).
9. "General Epidemiology", Moscow, 1949.
10. "Rationalization of the Struggle Against Dysentery In the Light of Modern Concepts Concerning Its Epidemiology", in book: "Dysentery", edited by L. V. Gromashevskiy, Moscow, 1956.

### XXIII. MIKHAIL MIKHAYLOVICH GURVICH

Following is a translation of an article by N. Zavalishin in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol 9, 1959, pages 621-622.

Born in 1901. Prominent figure in Soviet military medicine. In 1926, graduated from the First Leningrad Medical Institute. In 1931-1939, headed a school for sanitary instructors in the Leningrad Military District. During the Soviet-Finnish War (1939-1940), served as chief of the medical service in one of the armies. During the Great Patriotic War, he served as head of the medical service on the Western (later the 3d Belorussian) front. Proved to be an energetic and capable organizer of medical army service. With the direct participation of G., field hospitals were set up for the first time on the Western front in August 1941; the experience gained during the operation of these hospitals served as a basis for the organization in the Soviet Army of staff hospitals for lightly wounded military personnel. A great deal of attention was devoted by G. to the work done in screening hospitals, which played a particularly great role during the battle for Moscow, when the large hospital bases set up on the front received wounded personnel not only from the Western front, but also from neighboring fronts. In 1942, with the participation of G., a smoothly organized blood transfusion service was set up for the first time on the Western front; this experience was utilized on an army wide scale throughout the entire Soviet Army. G. devoted a great deal of attention to the improvement of transport facilities for wounded personnel; upon his initiative, improved (modernized) sanitary carts, sanitary sleds and motor bus equipment were used at the front; sanitary cavalry companies were organized, in order to perform medical transport operations in areas where no roads were available.

After the war, G. served as director of the medical service of an army group and of a military district. Later, G. switched to a pedagogical activity. He has published a training manual for sanitary instructors.

#### Works Published by G.

"Manual for Sanitary Instructors", Moscow, 1951.

#### XXIV. SERGEY NIKOLAYEVICH DAVIDENKOV

Following is a translation of an article by I. Razdol'skiy in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, pages 633-634.

Born in 1880. Outstanding Soviet neuropathologist, Honored Scientist, active member of the Academy of Medical Sciences USSR. After graduating from the medical faculty of Moscow University (1904), worked in psychiatric hospitals of Moscow and Khar'kov provincial "Zemstvos". In 1911, defended a dissertation on the topic concerned with the theory of Leyden-Westfal's acute ataxia. In 1912, was appointed professor of the chair for nervous and psychic diseases at the Khar'kov Women's Medical Institute. In 1920, transferred to the chair for nervous diseases of Baku University, which he headed until 1925. Since 1925, served as director of the department for professional diseases at the Institute Imeni V. A. Obukh in Moscow. Since 1932, has been head of the chair for nervous diseases at the Leningrad State Institute for Postgraduate Medical Training Imeni S. M. Kirov.

D. is a brilliant clinician and an active advocate of the idea calling for the adoption of I. P. Pavlov's physiological theory on higher nervous activity in the clinical treatment of nervous diseases. He devoted a large amount of effort to the study of the problem concerning hereditary diseases of the nervous system. D. is the author of 240 scientific studies. Under his direction, a number of investigations have been conducted, involving the study of a particular form of diphasic tick-borne encephalitis ("goat" encephalitis), and the introduction of cholinolytic and ganglion-blocking substances in the clinical treatment of nervous diseases.

D's. scientific work represents an important contribution to theoretical neurology and clinical neuropathology. He has worked on problems concerned with the pathophysiology of myogenic tonus during cerebral blood circulation disturbances and with the defense reflexes; he has also introduced the concept of hormetonia. The course of clinical lectures on nervous diseases, given by D. during 1952-1957, describes little-developed sections of clinical neuropathology and presents a thorough analysis of the symptomatology of various types of nervous diseases, as well as new data on problems dealing with pathophysiology, pathogenesis and treatment methods.

A number of D's. former students are now serving as heads of chairs for nervous diseases in the USSR.

#### Works Published by D.

1. "On the Theory of Leyden-Westphal's Acute Ataxia", Dissertation, Khar'kov, 1911.
2. "Data Pertaining to the Aphasia Theory", Khar'kov, 1915.
3. "Hormetonic Syndrome", Vrachebnoye Delo (Physician's Affairs), No. 29,

1919, p 801.

4. "Hereditary Diseases of the Nervous System", Moscow, 1932, Bibliography.
5. "Evolutionary and Genetic Problems in Neuropathology", Leningrad, 1947.
6. "Clinical Lectures on Nervous Diseases", Vol. 1-3, Leningrad, 1952-1957.
7. "Clinical Aspects and Therapy of Progressive Muscular Atrophy", Leningrad, 1954.

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Following is a translation of an article by R. Shtern in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 9, 1959, pages 638-639.

Born in 1887. Outstanding Soviet pathological anatomist, Hero of Socialist Labor, active member and vice-president of the Academy of Medical Sciences USSR, "Honored Scientist of the RSFSR".

After graduating from the medical faculty of Moscow University in 1910, worked as a "Zemstvo" physician (Translator's Note: "Zemstvo is the name given to an elective district council in pre-revolutionary Russia); in 1912, worked as assistant in the chair of pathological anatomy of Moscow University; from 1921 to 1930, served as prosector and docent of this chair. In 1930, headed the chair of pathological anatomy at the Second Moscow Medical Institute. Since 1913, D. has been directing the pathological-anatomical section of the former Yauzskaya Hospital (now known as the Clinical Hospital Imeni Medsantrud).

During the years of the Great Patriotic War, D. served as chief pathoanatomist of the Ministry of Public Health USSR.

D. has published over 60 scientific works, including a number of monographs and a handbook on pathological anatomy and pathogenesis of human diseases, which was published in 3 editions (1933-1935, 1938, 1956-58). The main characteristic feature of this handbook, which differentiates it from similar manuals, is the fact that the theory of pathological anatomy is described according to a posological principle, and not according to an organopathological principle. In 1925, D. revised the method of teaching specific pathological anatomy, and since that time, this subject is taught in Soviet medical institutes according to a posological principle.

D's scientific research work is concerned with the pathological anatomy and pathogenesis of infectious diseases, the pathology of combat injuries, the organization of prosector affairs and problems in the field of general pathology.

On hand of extensive data, D. has studied the pathology of combat injuries, and has developed a basic concept concerning the interrelationship between microbial principles and the human organism, depending upon the particular biological and physiological properties of the latter; he deduced the laws governing regenerating processes, and specifically, the role of the biological "cleansing" of wounds with the aid of exudate enzymes and wound microflora (during the second healing of wounds.) The ideas held by D. in regard to theoretical problems of pathology have also been summarized by him in studies devoted to a solution of general and local factors in pathology (1954), presented in his monograph "Theory of Infections" (1956).

D. is one of the organizers of the pathoanatomical service avail-

able in Soviet medical establishments; since 1924, upon his initiative, a comparison is effected between clinical and pathoanatomical diagnoses, and since 1930, clinical-anatomical conferences are being held, which have become an important means for improving medical service. D. has summarized data showing the mortality rate in Moscow hospitals during the period 1922-1932.

D. is a member of the editorial board of the "Great Medical Encyclopedia" (2d edition) and of multi-volume handbook on pathological anatomy. He is the chairman and honorary member of the All-Union Society of Pathoanatomists, honorary chairman of the Moscow Society of Pathoanatomists, and editor of the journal "Archives of Pathology".

#### Works Published by D.

1. "Pathological Anatomy and Pathogenesis of Exanthematous Fever", Parts 1-2, Moscow, 1921-1922.
2. "Experience Gained From a Comparison of Clinical and Pathoanatomical Diagnoses", Klinicheskaya Meditsina (Clinical Medicine), Vol. 6, No. 1, 1928, p 2.
3. "Pathological Anatomy and Pathogenesis of Human Diseases", Parts 1-2 Moscow-Leningrad, 1933-1935, 1938, etc.
4. "On the So-Called Septic Angina", Arkhir Patoanatomii (Archives of Pathological Anatomy), Vol. 1, No. 3, 1935, p 11 (in collaboration with A. G. Kestner).
5. "Analysis of Autopsy Materials Available in Pathoanatomical Sections of Hospitals, Institutes and Maternity Hospitals During the Period 1928-1932", Arkhir Patologii (Archives of Pathology), Vol. 6, No. 3, 1940, p 3.
6. "Traumatic Exhaustion in the Light of the Theory on Sepsis and Purulent-Resorptive Fever", Moscow, 1944.
7. "Human Gunshot Wounds", Vol 1-2, Moscow 1952-1954.
8. "Problems of Localization and Organopathology in the Light of Sechenov's, Pavlov's and Vvedenskiy's Theories", Moscow, 1954.
9. "Theory of Infections", Moscow, 1956.
10. "On the 100th Anniversary of Rudolf Virchow's Cellular Pathology" Arkhir Patologii (Archives of Pathology), Vol. 18, No. 5, 1956, p 3.
11. "Trauma as a Biological Problem", Ibid. Vol. 19, No. 9, 1957, p 6.

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1. "I. V. Davydovskiy", Arkhir Patologii (Archives of Pathology), Vol. 19, No. 9, 1957, p 3.
2. "Ippolit Vasil'yevich Davydovskiy", Sovetskaya Meditsina (Soviet Medicine), No. 10, 1957, p 154.
3. "Ippolit Vasil'yevich Davydovskiy", Arkhir Patologii (Archives of Pathology), Vol. 10, No. 1, 1958, p 69.

XXVI. GRIGORIY MIKHAYLOVICH DANISHEVSKIY

[Following is a translation of an article by L. Brusilovskiy in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 8, 1958, pages 664-665.]

Born in 1890. Well-known Soviet health resort specialist and climatologist. Graduated in 1914 from the medical faculty of Warsaw University.

Worked as a military physician until 1921, and then became engaged in scientific work, working in Odessa under the direction of Ye. M. Brusilovskiy. In 1925, served as director of a health resort clinic subordinate to the Peoples' Commissariat of Public Health in Moscow, later converted into the Central Institute of Health Resort Science. D. served as director of this institute for over 10 years. Since 1931, served as professor at the Central Institute for Postgraduate Medical Training, and has been a doctor of medical sciences since 1934.

D's. scientific interests include, in addition to problems concerned with health resort science, also problems in the field of rheumatism, human acclimatization and climatic pathology. He has published over 80 scientific studies, the most interesting of which are concerned with the experimental study of balneodynamics, the scientific analysis of the immediate and remote results produced by treatment in health resorts, and problems dealing with the balneotherapy of rheumatic diseases. His monograph, devoted to the acclimatization of man in Northern regions and containing a sketch of regional pathological and hygienic conditions, is the first monograph concerned with this problem published in the Soviet literature. A 3-volume handbook for physicians, entitled "Fundamentals of Health Resort Science", was published under his editorship, in collaboration with M. P. Konchalovskiy.

D. has been working on problems dealing with health resort science, associated with the clinical treatment of cardiovascular diseases. He also serves as editor of the section on health resort practice and physical therapy in the "Great Medical Encyclopedia".

D. was elected active member of the International Balneological Society and of the International Association for Combating Rheumatism.

Works Published by D.

1. "On the Problem of the Immediate Effect Exerted by Matsestinsk (?) Water on the Secretion of the Pancreas", Trudy Tsentral'nogo Instituta Kurortologii (Transactions of the Central Institute for Health Resort Science), Vol. 1, Moscow, 1928, p 43.
2. "Preliminary Conclusions of a Scientific Analysis of Results Obtained in the Treatment of Cardiovascular Diseases at Health Resorts", *Ibid.* p. 288.
3. "Certain Experimental Data Concerned With An Analysis of the Effect

Exerted by Health Resort Factors on the Organism", Vol. 3, Moscow-Leningrad, 1930, p 3 (together with other authors).

4. "La balneotherapie des maladies rhumatismales et ses indications", Moscow, 1934.
5. "Le rhumatisme et le travail professionnel", Moscow, 1932.
6. "Le rhumatisme et les conditions microclimatiques de l'habitation", Moscow, 1936 (in collaboration with I. G. Gel'man).
7. "Acclimatization of Man in the Northern Regions", Moscow, 1955, Bibliography.

XXVII. VASILII STEPANOVICH DERKACH

Following is a translation of an article by Yu. Milenushkin in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 8, 1958, page 1081.

Born in 1894. Well-known Soviet microbiologist and immunologist, corresponding member of the Academy of Medical Sciences USSR (1945), and "Honored Scientist of the Ukrainian SSR".

Graduated from the medical faculty of Khar'kov University in 1917. In 1918, worked in the chair of microbiology at the Khar'kov Medical Institute, and has been head of this chair since 1932.

D. is the author of 68 publications. His experimental work on bacteriophagia (1922) served as a starting point for an exhaustive study of bacteriophagia in our country. In 1943, D. proposed the use of a bacteriophagic method in mixed cultures. A number of research studies conducted by D. (1930-1936) are concerned with the investigation of the nature of the typhoid toxin and antitoxin. The data obtained as a result of this research were of importance in developing new methods of vaccination against typhus abdominalis.

Of great practical importance is a series of studies performed by D. (1939), concerning the antibiotic properties of aniline dyes and compounds of the phenazine series, such as pyocyanin and its analogs and homologs (a number of studies performed in collaboration with A. I. Kiprianov). Specifically, a method for preparing pyocyanin was developed (1946), and the use of an antibiotic preparation known as sanazin was proposed. The work done by D. in recent years involves the study of the mechanism of the therapeutic action exerted by antibiotics. Of interest are the experimental studies conducted by D., aimed at the preparation of antibiotic compounds effective against tumors (neocides). A number of studies performed by D. are concerned with the application of microbiology in agriculture, such as biological and immunological methods for combating paratyphoid fever in bees and sugar beet pests.

Works Published by D.

1. "On the Antigenic and Immunizing Properties of Toxic Compounds Present in Typhoidal Bacteria", Dissertation, Trudy Ukrainskogo Instituta Epidemiologii i Mikrobiologii Imeni Mechnikova (Transactions of the Ukrainian Institute of Epidemiology and Microbiology Imeni Mechnikov), Vol. 4, Khar'kov, 1939.
2. "Study of the Antibiotic Properties of Pyocyanin", Ibid. Vol. 10, 1946, p 55.
3. "Antibiotics Used Against Malignant Neoplasms", Ibid., Vol. 23, 1956, p 15.

## XXVIII. NIKOLAY IVANOVICH IGOLKIN

(On His 40th Anniversary of Engineering Work in the Highway Service)

Following is a translation of an unsigned article in *Avtomobilnyye Dorogi* (Motor Highways), No. 12, 1957, page 33.

Nikolay Ivanovich Igolkin, one of the oldest road builders in the USSR, and presently chief engineer of Gushosdor (Main Administration of Highways) in the Ministry of Automobile Transport and Motor Highways RSFSR, celebrated his 60th birthday and his 40th anniversary of industrial engineering work on 19 December 1957.

N. I. Igolkin started to work in the road construction field prior to the Great October Socialist Revolution, and has been continuously working in various highway organizations ever since that time. During the Civil War, as a member of a military road detachment, N. I. Igolkin took part in the liquidation of White Russian and Polish bands in the Ukraine.

Being one of the outstanding specialists in the repair and maintenance of motor highways, he summarized his knowledge, derived from many years of experience, in a book entitled "Repair and Maintenance of Motor Highways", and proposed the use of a new mechanized brigade (crew) method for repairing and maintaining modern motor highways, which is being used on many roads of the Soviet Union.

N. I. Igolkin is taking an active part and offering local assistance in converting, during the process of capital (major) repairs, old road surfaces into improved black-top surfaces, and also helps rationalizers and inventors to design new highway machinery used by road operating facilities. A large amount of work has been done by N. I. Igolkin in the fields of winter maintenance, landscaping and cultural improvement of motor highways.

N. I. Igolkin is engaged in a wide and varied range of activities. He is a member of the Scientific Council of Soyuzdornii (State All-Union Scientific Research Institute of Road Service), member of the Technical Council of Glavdorstroy (Main Administration of Road Construction) under the Council of Ministers USSR, member of the editorial board of the journal "Motor Highways", member of the Technical Council of the Ministry of Automobile Transport and Motor Highways RSFSR, Chairman of BRIZ (Office for the Promotion of Industrial Efficiency and Inventions) and of the Technical Consulting Department of Gushosdor (Main Administration of Highways). He participates in the work done by organs of the Economic Council in the United Nations Organization, as an expert representing the Soviet Union.

The productive activity displayed by N. I. Igolkin has been highly appraised by the Soviet government and the leading organs of the Ministry. He has been awarded 3 orders and several medals. He was one of the first recipients of the badge "Honored Road Builder", and has been awarded the honorary title of "Expert in the Highway Service".



XXIX. PROFESSOR A. F. GAMMERMAN

Following is a translation of an article by the editorial board of the journal "Aptechnoye Delo" (Pharmaceutical Affairs), the Administration Board of the All-Union Scientific Pharmaceutical Society, and the Administration Board of the Scientific Pharmaceutical Society USSR, in Aptechnoye Delo (Pharmaceutical Affairs), No. 3, 1959, pages 94-95./

At the end of 1958, the Leningrad Chemical-Pharmaceutical Institute, pharmacists and the general public throughout our country celebrated a fine jubilee, namely the 70th birthday of Professor Adele Fedorovna Gammerman, doctor of pharmaceutical sciences, and organizer and leader of a scientific school of Soviet pharmacognosists.

Adele Fedorovna Gammerman was born on 26 November 1888 in St. Petersburg in a family in which several preceding generations, namely her father, grandfather and great grandfather, were engaged in pharmaceutical work and liked this particular branch of science.

Adele Fedorovna, already prior to the Great October Socialist Revolution, completed a pharmacist's course at Yur'yev University (now known as Tartu University, in the Estonian SSR). She was one of the few women in Russia who were able to obtain a higher pharmaceutical education.

Prior to the revolution, Adele Fedorovna was studying the problem concerning the production of domestic opium, and for this purpose, took part in an expedition to Semirech'ye.

Following her return to Petrograd after the October revolution, A. F. Gammerman enrolled into the recently organized Petrograd Chemical-Pharmaceutical Institute, and graduated from this institute with the first graduating class in 1922. Already at that time, she displayed a particularly great interest in pharmacognosy.

After her graduation from the institute, Adele Fedorovna was retained as an assistant in the chair of pharmacognosy (headed by Prof. L. G. Spasskiy), where she continued to work, serving in various posts, including that of professor and head of the chair.

In 1925, A. F. Gammerman received the scientific title of candidate of biological sciences, without having to defend a dissertation and on the merits of her previous general scientific work; in 1942, the VAK (Higher Certification Commission) bestowed upon her the scientific title of doctor of pharmaceutical sciences, on the basis of a public defense of a dissertation on the subject "Survey of Medicinal Plants Used in Eastern Medicine", a very extensive work, covering 3 volumes, containing a collection of extremely valuable data. Unfortunately, in view of the wartime situation, this study remained unpublished.

While working at the Leningrad Chemical-Pharmaceutical Institute, Adele Fedorovna also worked, from 1921 to 1939, at the museum of the Botanical Institute of the Academy of Sciences USSR, first serving as a preparator, and finally occupying the post of senior scientific associate.

In 1920-1933, A. F. Gammerman served as consultant on botany at the Academy of the History of Material Culture, and in 1934-1935, as a consultant in the All-Union Institute of Experimental Medicine (VIEIM) on problems pertaining to the study of Eastern medicine.

Starting in 1937, and up to the present time, Adele Fedorovna served as permanent member on the State Pharmacopeia Committee of the Ministry of Public Health USSR, where she performs important duties concerned with the processing and editing of articles describing medicinal raw materials.

During the Great Patriotic War, A. F. Gammerman moved to Moscow, where she continued to work in the same successful manner as head of the Pharmacognostic Department of the All-Union Scientific Research Institute of Medicinal and Aromatic Plants (VIAP), and as head of the Botany Section in the Central Pharmaceutical Scientific Research Laboratory (TsANIL).

During the same period, she worked in the pharmacognosy chair of the Moscow Pharmaceutical Institute, where she efficiently organized a practical summer course on pharmacognosy, recently introduced in the academic program of higher pharmaceutical training establishments, as well as the activities of a scientific student club attached to the chair. Her participation in the work done at the above-mentioned chair represented a creative contribution to the activities of this chair.

Adele Fedorovna always takes part in various field expeditions involving the study of medicinal plants. Thus, in 1926, she went to Turkmenia and Uzbekistan to collect data on Central Asian medicinal plants, used in popular medicine (this collection was turned over to the Botanical Institute of the Academy of Sciences USSR). In 1931 and 1933, she took part in field expeditions in Buryat-Mongolia, as a representative of the Academy of Sciences USSR and the All-Union Institute of Experimental Medicine, in order to study plants used in Tibetan medicine; the extensive collections, herbaria and plant raw materials gathered by her were also turned over to the Botanical Institute of the Academy of Sciences USSR. In 1936, she visited the town of Bakuriani (Western Georgia), to study poisonous plants.

Upon returning to Leningrad after the war, Adele Fedorovna continued her highly useful scientific and pedagogical work in this city. Only during the period from 1953 to 1955, she left the Leningrad Chemical-Pharmaceutical Institute to work at the Pyatigorsk Pharmaceutical Institute.

Wherever Adele Fedorovna is working, she is held in high esteem as a teacher and instructor, and is highly respected as a scientist. Her soft and responsive character attracts many young people, both associates and students.

Her scientific work is primarily concerned with the study of medicinal plant resources available in the USSR and in a number of adjacent regions of Central Asia.

A. F. Gammerman has contributed a great deal to the organization of a system for teaching pharmacognosy in the USSR. Her textbook, entitled "Course on Pharmacognosy", published in several editions and pres-

ently being re-edited again by Medgiz (State Publishing House for Medical Literature), is widely known throughout the USSR and far beyond its borders. Under her direction, 15 candidate dissertations have been successfully defended at various times. A. F. Gammerman is the author of about 70 scientific works.

In 1958, A. F. Gammerman was appointed member of the Problem Commission No. 47 attached to the Academy of Medical Sciences USSR, where she very successfully analyzes specific problems concerned with scientific research in the field of medicinal plant raw materials.

In spite of her age, she exhibits great vitality and energy, which she communicates to her associates and students, working with enthusiasm under her authoritative leadership. At the 2d All-Union Conference of Pharmacists (held in Leningrad in March 1959), A. F. Gammerman was unanimously elected honorary member of the All-Union Scientific Pharmaceutical Society.

We extend our hearty wishes to dear Adele Fedorovna for continued good health and further creative achievements in her noble pursuits aimed at the development and improvement of Soviet pharmacognosy.

XXX. ZINAIDA YULIANOVNA ROL'YE

(On Her 70th Birthday and 45th Anniversary of Her Medical,  
Scientific and Pedagogical Activity)

Following is a translation of an unsigned article in Problemy  
Tuberkuleza (Problems of Tuberculosis), No. 3, 1959, Pages 113-114.

Professor Zinaida Yulianovna Rol'ye, an "Honored Scientist", has just celebrated her 70th birthday.

The staff of the Institute of Tuberculosis of the Academy of Medical Sciences USSR, medical circles of Moscow, representatives of scientific research institutes for tuberculosis in union republics and practicing physicians specializing in osteoarticular tuberculosis, who convened in October 1958 at the regular scientific session of the Institute of Tuberculosis of the Academy of Medical Sciences, devoted to the 40th anniversary of the Bone Clinic Head T. P. Krasnobayev, extended their hearty greetings to the hero of the day.

Z. Yu. Rol'ye was born in 1888 in Smolensk as the daughter of an engineer. She received her higher medical education in Switzerland, where she worked for 5 years under the direction of one of the most outstanding specialists on osteoarticular tuberculosis, Prof. A. Rol'ye, and then returned to Russia in 1916.

After the Great October Socialist Revolution, Z. Yu. Rol'ye, with the support of N. A. Semashko, People's Commissar of Public Health, and V. M. Bonch-Bruyevich, became engaged with great energy in the organization of the first Soviet osteoarticular children's sanatorium in Sokol'niki, which was opened in July 1918. In 1919, Z. Yu. Rol'ye enrolled the services of Prof. T. P. Krasnobayev as a consultant of the sanatorium.

As a result of the great experience and energy displayed by T. P. Krasnobayev and Z. Yu. Rol'ye, this sanatorium became a scientific research and methodical center for the study of bone tuberculosis in the Soviet Union. Since 1934, the sanatorium served as the clinic of the Central Tuberculosis Institute (known at present as the Institute of Tuberculosis of the Academy of Medical Sciences USSR).

While serving as permanent head of the clinic for osteoarticular tuberculosis, Z. Yu. Rol'ye, together with her staff of associates and in close collaboration with her teacher, Prof. T. P. Krasnobayev, worked on problems concerned with the organization of measures for combating osteoarticular tuberculosis, early diagnosis, and clinical aspects and treatment of this disease.

The results of observations and studies conducted at this clinic served as a basis for public health organs in setting up an extensive network of osteoarticular sanatoria not only in Southern health resorts, but also in local residences of patients suffering from this disease.

Z. Yu. Rol'ye has developed methods involving the prolonged antibacterial therapy of such patients, and indications for the functional therapy of this disease.

On the basis of a large number of clinical observations and an analysis of remote results of treatment, Z. Yu. Rol'ye was able to substantiate for the first time and to consider the problem involving the possibility of curing patients suffering from osteoarticular tuberculosis.

Z. Yu. Rol'ye has published 46 scientific works, including 3 monographs. Particular attention should be given to her book, entitled "Osteoarticular Tuberculosis of Children", which has become a practical handbook used by large numbers of physicians. This book has been translated into Korean.

During her 40 years of clinical work, Z. Yu. Rol'ye has trained and educated a large number of physicians specializing in bone tuberculosis; under her direction, candidate dissertations were presented and defended by a number of institute associates and physicians working in peripheral establishments.

In addition to her scientific activity, Z. Yu. Rol'ye is engaged in extensive public work, serving as member of the Administration Board of the All-Union and Moscow Societies of Phthisiologists, and as chairman of the board of the bone section in the Moscow Society of Phthisiologists; she takes an active part in congresses and conferences on tuberculosis. The name of Z. Yu. Rol'ye is widely known in the USSR and abroad. Her achievements have been highly appraised by the government, which has awarded to her the Order of the "Red Banner of Labor" and a medal for "Honorable Work During the Great Patriotic War".

In 1958, the Presidium of the Supreme Soviet RSFSR has bestowed upon Z. Yu. Rol'ye the honorable title of "Honored Scientist of the RSFSR". On her 70th anniversary, Z. Yu. Rol'ye is in full possession of her creative powers. The editorial board of the journal "Problems of Tuberculosis", her working associates and numerous pupils extend to Zinaida Yulianovna Rol'ye their best wishes for continued good health and further success in her work.

XXXI. MARK IL'ICH OYFEBAKH

Following is a translation of an unsigned article in Problemy Tuberkuleza (Problems of Tuberculosis), No. 7, 1958, page 119.

On 29 May 1958, medical circles celebrated the 60th birthday and the 37th anniversary of the medical, public and scientific-pedagogical activity of Professor Mark Il'ich Oyfebakh, doctor of medical sciences.

Mark Il'ich, member of the CPSU, is one of the most prominent leaders in the struggle against tuberculosis in the USSR, as well as a clinician and phthysiologist, pedagog and public figure.

After graduating in 1921 from the medical faculty of Kazan University, Mark Il'ich worked at the Institute for Postgraduate Medical Training Imeni V. I. Lenin and at the Institute of Tuberculosis in Kazan from 1921 to 1931. During this period, M. I. Oyfebakh did a great deal of work in connection with the organization of anti-tubercular establishments in the Tatar ASSR.

Having received a good general training in therapeutics at the clinic of Prof. R. A. Luriye, M. I. Oyfebakh was able to combine in a creative manner his therapeutic and phthysiological knowledge. He is the author of one of the first studies dealing with the bronchoscopy, diagnosis and treatment of suppurative pulmonary processes.

Since 1931, and up to the present time, Mark Il'ich has been working at the Tuberculosis Institute of the Academy of Medical Sciences USSR. During this period, he has performed a large number of studies associated with the clinical treatment, organization and methods of combating tuberculosis.

Mark Il'ich deserves great credit in the field of tuberculosis for his original and valuable studies on primary tuberculosis in adults.

In addition to his varied scientific activity, Mark Il'ich has devoted a great deal of effort to the organization of the struggle against tuberculosis. For a number of years, he directed the Tuberculosis Administration in the Ministry of Public Health RSFSR, and initiated the creation of the first complex plan for combating tuberculosis in the RSFSR. Under his active participation, a number of measures were worked out for organizing a system of early diagnosis of tuberculosis, and for improving the therapeutic and prophylactic service available to the population.

As a result of his thorough knowledge of clinical and theoretical aspects of tuberculosis, and his knowledge of the way in which the struggle against tuberculosis is conducted in dispensary practice, Mark Il'ich has promoted the introduction of scientific achievements into the practical work done at anti-tubercular establishments. In 1934, he directed the first successful attempt involving the training of phthysiologists by means of a correspondence course. Pupils taught by Mark Il'ich are working in many oblast's and krays of the Soviet Union.

He is the author of 85 publications, concerned with the clinical



treatment, epidemiology and the organization of the struggle against tuberculosis, including a handbook for physicians and pedagogs, and one monograph.

M. I. Oyfepakh takes an active part in public life. He is serving as a member of the board of the All-Union Society of Phthysiologists, as deputy chairman of the Problem Commission on Tuberculosis in the Academy of Medical Sciences USSR and the Ministry of Public Health USSR, as member of the bureau in the medical section of the All-Union Society for the Dissemination of Political and Scientific Knowledge, etc.

The government has highly appraised the activity of M. I. Oyfepakh and has awarded to him the Order of Lenin, the Order of the Red Banner of Labor, several medals and the badge "Excellent Public Health Worker".

The celebration in honor of M. I. Oyfepakh took place in a hearty atmosphere. The ceremony was attended by representatives of scientific societies of phthysiologists and staff members from anti-tubercular establishments in Moscow, Leningrad, the Ukraine, Uzbekistan, Kazakhstan, Georgia, Azerbaydshan, Kirgizia, Latvia, Lithuania and various regions of the Russian Federation.

We extend to Mark Il'ich our best wishes for continued good health and further success in his work.



## XXXII. VLADIMIR VASIL'YEVICH KOVANOV

(On His 50th Anniversary)

Following is a translation of an article by the editorial board of the journal "Experimental Surgery" in Ekspperimental'naya Khirurgiya (Experimental Surgery), No.3, 1959, pages 63-64.

Prof. Vladimir Vasil'yevich Kovanov, head of the chair for topographic anatomy and operative surgery at the First Moscow "Order of Lenin" Medical Institute Imeni I. M. Sechenov, celebrated his 50th birthday and his 25th anniversary of scientific and pedagogical activity in March 1959.

V. V. Kovanov was born in 1909 in a peasant family. In 1931, he graduated from the First Moscow Medical Institute, and in 1934, he completed his postgraduate training (aspirantura) at the chair for topographic anatomy and operative surgery. Until 1938, he worked as an assistant in this chair, and since 1938, he worked as assistant in the faculty surgical clinic headed by Academician N. N. Burdenko. In 1938, he defended his candidate dissertation on the subject "Infiltration Method for the Treatment of Pyoinflammatory Processes".

In 1942, V. V. Kovanov enlisted as a volunteer into the ranks of the Soviet Army, and served at the front as chief surgeon of a hospital and as an army surgeon.

In 1946, V. V. Kovanov was awarded the title of doctor of medical sciences, after defending a dissertation on the subject "Intracardiac, Intraarterial and Interstitial Introduction of Medicinal Compounds".

In 1947, Vladimir Vasil'yevich was appointed to the chair for operative surgery and topographic anatomy at the First Moscow "Order of Lenin" Medical Institute, which he is heading at the present time.

V. V. Kovanov is the author of 50 scientific works, including 3 monographs. One of these monographs, entitled "New Methods for the Introduction of Medicinal Compounds", was awarded the Prize Imeni S. I. Spasokukotskiy in 1948.

Problems concerned with the treatment of wounds and purulent surgery occupy of major place in the studies performed by V. V. Kovanov.

Another group of studies conducted by V. V. Kovanov represents the results of his work as a military surgeon. These include articles describing the treatment of thorax wounds, anaerobic infections, traumatic shock, the organization of surgical work in a field army district, etc.

V. V. Kovanov must be credited with the initiative in developing methods for the intravascular injection of medicinal compounds.

In his studies of an experimental nature, V. V. Kovanov examines problems concerning the carbohydrate metabolism during novocain block according to Vishnevskiy, the motor function of the intestine during various types of narcosis (hexenal, avertin, ether), and intercardiac introduction of medicinal compounds.

His work on topographical anatomy is concerned with collateral blood circulation, as well as with fascia and the cellular spaces of the human body.

V. V. Kovanov is devoting a great deal of attention to a study of the history of surgery. Attention is directed to his interesting studies of the role played by N. I. Pirogov in the development of anesthesia and experimental surgery. Particular attention should be given to his monograph on "N. V. Sklifosovskiy" (1952), which sheds new light on the outstanding role played by N. V. Sklifosovskiy in the development of Soviet medicine and surgery.

In 1958, V. V. Kovanov, (together with T. I. Anikina), published a monograph entitled "History of the Chair for Operative Surgery and Topographic Anatomy at the First Moscow "Order of Lenin" Medical Institute Imeni I. M. Sechenov", which presents valuable data on the history of the development of Soviet surgery.

The presence of a large volume of experimental data, a thorough analysis and an excellent documentation impart to all works published by V. V. Kovanov the character of a serious theoretical study, which at the same time has also a significant practical importance. 2 doctoral and 20 candidate dissertations have been conducted under the direction of V. V. Kovanov.

The public and administrative activity displayed by V. V. Kovanov also covers a wide range of problems. He is a member of MCK KPSS (Moscow City Committee of the CPSU) and a deputy of the Moscow Soviet. For a number of years, V. V. Kovanov served as deputy director, and since 1956, as director of the First Moscow "Order of Lenin" Medical Institute Imeni I. M. Sechenov. At the same time, V. V. Kovanov performs an extensive amount of work in his capacity of deputy chief editor of the journal "Experimental Surgery". V. V. Kovanov is the recipient of 9 orders and medals awarded to him by the Soviet government.

A very valuable quality of V. V. Kovanov, as a director, is his ability to combine a strenuous scientific and pedagogical activity with an extensive and varied administrative activity.

Always accessible and simple, well-wishing and attentive, Vladimir Vasil'yevich enjoys the great respect and devotion of his colleagues.

V. V. Kovanov can be cited as an example of a Communist scientist who devotes all his efforts and knowledge to the development of Soviet medical science and to the training of medical staffs.

Following is a translation of an unsigned article in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 10, 1959, pages 511-512.<sup>7</sup>

Born in 1908. Prominent Soviet microbiologist and immunologist, active member of the Academy of Medical Sciences USSR (1948). Graduated from the medical faculty of the Second Moscow State University in 1930. Zh.-V. served as vice-president of the Academy of Medical Sciences USSR (1949-1952), and as first deputy minister of Public Health USSR (1952-1954). Since 1955, he is head of the immunobiology section at the Institute of Experimental Biology of the Academy of Medical Sciences USSR. Zh.-V. has published over 80 scientific studies. His main work is concerned with the study of antigens, general problems of immunology, plague, cholera, bacteriophagia and immunology of cancer. His studies of the antigens present in microbes, cells and tissues have shown that antigenic differences and the possibility of immunological reactions between various living organisms reflect basic laws of the onto- and phylogenetic development under normal and pathological conditions. He has elaborated a theory concerned with bacterial mutability involving species formation and the theory of bacteriophagia. Principles for the preparation of a vaccine effective against plague have been developed by Zh.-V. and his associates (1944), on the basis of which a modern Soviet live vaccine has been developed, and he has also proposed an effective complex method for the treatment of primary pneumonic plague (1945).

Works Published by Zh.-V.

1. "Critique of Certain Problems of Contemporary Immunology", Vestnik Mikrobiologii, Epidemiologii i Parazitologii (Herald of Microbiology, Epidemiology and Parasitology), Vol. 11, No. 4, 1932, p 221.
2. "Antiplague Vaccine ZhV", Trudy Rostovskogo-na-Doni nauch.-issled. protivochumn. in-ta (Transactions of the Antiplague Scientific Research Institute at Rostov-on-the Don), Vol. 1, 1939, p 3.
3. "Immunology of Plague", Moscow-Leningrad, 1940.
4. "Diagnosis of Plague and Cholera", Moscow, 1943.
5. "Modern Theory of Antigens", Trudy 12-go Vsesoyuz. s"ezda pig., epid. mikrobiolog. i infektsionistov (Transactions of the 12th All-Union Congress of Hygienists, Epidemiologists, Microbiologists and Infectious Disease Specialists), Vol. 2, Moscow, 1949, p 49.
6. "On the Significance of Microbiological Data for the Development of the Species Formation Theory", Voprosy filosofii (Problems of Philosophy), No. 2, 1957, p 117.
7. "On the Nature and Significance of Bacteriophagia, on the Theory of Bacteriophagia in the Light of New Experimental Data", Zhurn. mikr., epidem. i immunol. (Journal of Microbiology, Epidemiology and Immunology), No. 12, 1957, p 76 (in collaboration with A. F. Pakhov).

XXXIV. PAVEL YEFIMOVICH ZABLUDOVSKIY

Following is a translation of an unsigned article in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 10, 1959, pages 17-18.

Born in 1894. Well-known Soviet medical historian. Received his medical education first at the Novorossiisk (Odessa), and then at Kiev University. Served as military physician during 1914-1918, and took part in the Civil War from 1919 to 1922. In 1922, was engaged in sanitary instruction work, and after 1937, having received an education in the field of philosophy, worked on the history of medicine. Since 1940, served as head of the chair of medical history at the Central Institute for Post-graduate Medical Training. He has trained instructors in the field of medical history for many medical institutes.

Z. is the author of a cycle of lectures on medical history, and of a number of chapters in training manuals, as well as of a number of studies dealing with the medical history of Russia and foreign countries. Z. has translated and written comments on classical medical works, such as those of Fracastoro, Paracelsus, Ramazzini, etc.

Under the direction of Z., studies were conducted on the history of Russian and Soviet pediatrics, published in 3 volumes, as well as on the history of Soviet surgery, epidemiology, etc.

Works Published by Z.

1. "History of Medicine", No. 1, Moscow, 1953.
2. "History of Medicine as a Science, and other chapters in book: "History of Medicine", edited by B. D. Petrov, Vol. 1, Moscow, 1954, pp 3-150.
3. "History of Soviet Medicine", a cycle of lectures, No. 1-9, Moscow, 1955-1956.

Following is a translation of an article by I. Lidov in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 10, 1959, pages 542-543.

Born in 1894. Prominent figure in Soviet military medicine, professor, General-Lieutenant in the Medical Service.

Graduated from the medical faculty of Moscow University in 1917. In 1918, joined the Soviet Army, and took part in the Civil War of 1918-1921, in the Soviet-Finnish War of 1939-1940, and in the Great Patriotic War of 1941-1945. Since 1933, served as senior instructor in the chair for military and military-sanitary subjects at the Military Medical Academy Imeni S. M. Kirov, headed at that time by B. K. Leonardov. From 1939 to 1941, headed a similar chair at the Kuybyshev Military Medical Academy. In 1944, served as deputy chief of the Main Military-Medical Administration, and from 1947-1952, as director of this administration. In 1952-1953, served as director of the Military-Medical Academy Imeni S. M. Kirov. Since 1953, served as professor at the Second Moscow Medical Institute.

Z. is the author of over 50 publications, concerned mainly with problems related to the organization and tactics of the medical service.

A number of studies conducted by Z. is devoted to work concerned with the evacuation of wounded personnel under mountain combat conditions, the organization of the operations of advance evacuation points, control-evacuation hospitals, hospital collection points, and medical distribution posts. Z. participated in the processing of the most important guiding materials used in the military medical service. Z. is a collaborator of a number of military-medical publications: he is a member of the editorial board of the "Military Medical Journal", of the multi-volume work "Experience of Soviet Medicine During the Great Patriotic War of 1941-1945", of the "Encyclopedic Dictionary of Military Medicine", and is the chief editor of the "Encyclopedic Medical Handbook for Military Medical Assistants (Feldshers)".

Works Published by Z.

1. "Sanitary Evacuation in Mountain Areas", Sbornik rabot kaf.voyen. i voyen-san.distsiplin Voen med. akad. (Collected Works of the Chair for Military and Military-Medical Subjects at the Military Medical Academy), No. 1, Leningrad, 1936, p 191.
2. "Advance Sections of a Field Evacuation Point, or Advance Evacuation Points", Ibid. No. 2, 1939, p 219.
3. "Hospital Collector Points Built on Solid Ground", Trudy Kuybyshev Voen.-med.akad. (Transactions of the Kuybyshev Military Medical Academy), Vol. 2, 1940, p 107.
4. "Sanitary Service During the Great Patriotic War" Tyl i snabzheniye Krasnoy Armii (Rear and Supply Facilities of the Red Army), No. 7, 1942 p 6.

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

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XXXVI. NIKOLAY IVANOVICH ZAZYBIN

Following is a translation of an unsigned article in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia) Vol. 10, 1959, page 584.

Born in 1903. Prominent Soviet histologist, corresponding member of the Academy of Medical Sciences USSR, "Honored Scientist of the Ukrainian SSR".

Graduated in 1925 from the medical faculty of Donskoy University, and then worked in A. A. Kolosov's laboratory. In 1931-1944, headed the chair of histology at the Ivanovo Medical Institute, and from 1944 to 1954, headed the chair of histology at the Dnepropetrovsk Medical Institute. Since 1954, has been heading the chair of histology at the Kiev Medical Institute.

Z. is the author of 56 scientific publications, concerned mainly with the study of the histogenesis and structure of the peripheral nervous system, and also with an analysis of the innervation of various tissues of the organism. Z. has established certain laws governing processes involving the regeneration of nerve fibers and endings during the healing of wounds, during transplantation, and also during the action of various physical, chemical and biological stimulants; he has also established the innervation sequence of tissue regeneration organs.

Works Published by Z.

1. "On the Nerve Fibers Present in Stratified Squamous Epithelia", Rus. arkh.anat. gistol. i embriol. (Russian Archives of Anatomy, Histology and Embryology), Vol 7, No. 1, 1928, p 21.
2. "Über die Innervation der Pigmentzellen bei Säugetieren", Z. Zellforsch., Bd. 20, 1934, p 476.
3. "Histopathologische Veränderungen der blutbildenden Organe bei Einwirkung hoher Temperatur", Virchows Arch. path. Anat., Bd. 292, 1934, P 114.
4. "Embryogenesis of the Peripheral Nervous System", Dissertation, Moscow-Ivanovo, 1936.
5. "Innervation of Cartilaginous Tissue", Arkh.anat.gistol.i embriol. (Archives of Anatomy, Histology and Embryology), Vol. 21, No.3, 1939, p 327.
6. "Experimental Neurohistology of the Receptor Area", in book: Problems Concerned With Interneuronal and Neurotissular Relations, edited by G. V. Fol'bort, Kiev, 1953, p. 5.
7. "Adaptation and Defense Reactions of the Peripheral Nervous System" in book: "Physiology of Neural Processes", edited by A. M. Vorob'yev et al., Kiev, 1955, p 312.



XXXVII. VASILII VASIL'YEVICH ZAKUSOV

Following is a translation of an article by S. Anichkov  
in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical  
Encyclopedia), Vol. 10, 1959, page 624.

Born in 1903. Prominent Soviet pharmacologist, active member of the Academy of Medical Sciences USSR (1952). Graduated from the Military-Medical Academy in 1926. In 1931, served as instructor in the pharmacology chair of the Academy, and in 1937, held the additional post of head of the pharmacology chair at the Third Leningrad Medical Institute. In 1936, defended his doctoral dissertation, and from 1939 to 1942, served as director of the chair of pharmacology at the Kuybyshev Military-Medical Academy. From 1944 to 1954, served as head of the pharmacology chair at the Leningrad Medical Institute Imeni I. P. Pavlov. Since 1954, serves as director of the Institute of Pharmacology and Chemotherapy of the Academy of Medical Sciences USSR. Since 1956, also heads the chair of pharmacology at the First Moscow Medical Institute.

Z. is the author of over 60 scientific works, concerned mainly with the pharmacology of the cardiovascular and nervous systems.

Of great interest are the results obtained by Z. during a study of the effect exerted by cardiac glucosides on the carbohydrate metabolism of the myocardium and of the pharmacology of coronary blood circulation. He has pointed out the importance of reflexes from various vascular reflexogenic zones in the mechanism of the resorptive action of pharmacological compounds. Z. has conducted extensive research on the problem concerned with the pharmacology of the nervous system, which made it possible to establish laws governing the action of narcotics, analgetics and stimulators on the synaptic transmission of a nervous stimulus.

While studying this problem, Z. has developed and utilized fine electrophysiological research methods.

Z. has published 2 original monographs, which represent a valuable contribution to the pharmacology of the nervous system.

Works Published by Z.

1) "Experimental Data on the Pharmacology of the Central Nervous System" (Leningrad, 1947-1948).

2) "Pharmacology of the Nervous System", Leningrad, 1953.

XXXVIII. PAVEL FELIKSOVICH ZDRODOVSKIY

[Following is a translation of an article by T. Boldyrev in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol 10, 1959, pages 841-842.]

Born in 1890. Prominent Soviet microbiologist and immunologist, active member of the Academy of Medical Sciences USSR, Lenin and Stalin Prize laureate. Graduated from the medical faculty of Kazan University in 1914. In 1920, defended his doctoral dissertation on the subject of an experimental evaluation of Abderhalden's reaction. In 1920-1922, served as physician and epidemiologist in the Red Army; in 1922-1925, served as docent in the chair of microbiology of Baku University, and in 1926-1930, as professor. In 1930, Z. worked at the All-Union Institute of Experimental Medicine in Leningrad, heading the epidemiology section and the division of vaccine and sera production. In 1934, Z. moved to Moscow, together with the above institute, and from 1945 to 1957, directed the department of experimental pathology and immunology of infections, and later the rickettsiosis division in the Institute of Epidemiology and Microbiology Imeni N. F. Gamaley.

In Azerbaydzhan, Z. organized the Institute of Microbiology and Hygiene, and in 1922-1930, directed the work done at this institute in the field of microbiology, preventive immunization, and production of vaccines and sera. In Azerbaydzhan, Z. performed extensive studies concerned with the parasitology, immunology and epidemiology of malaria, the propagation and pathogenesis of intestinal Protozoa infections, the parasitology, pathogenesis and epidemiology of ancylostomiasis, the parasitology and serology of leishmaniasis, and the thorough and extensive investigation of brucellosis (Malta fever) in the USSR.

In the field of experimental microbiology and infectious pathology, Z. has conducted studies of cholera, cerebrospinal meningitis, and has solved the problem of anatoxins in its application to problems in the field of preventive immunization and production of sera. Upon the initiative of Z. and under his direction, vaccinations of children with diphtherial anatoxin were conducted for the first time in our country (in collaboration with K. T. Kholyapina, Leningrad), and an experimental study was made of anatoxin vaccinations against tetanus (in collaboration with B. V. Voskresenskiy). Z. has developed a non-reactive anavaccine against typhus abdominalis and paratyphoid fever B. He also acted as an initiator of development work on the problem concerning brucellosis and of a systematic study of this disease as it applies to human pathology.

A live vaccine against brucellosis was developed in Z's laboratory (together with P. A. Vershilova and Kh. S. Kotlyarova).

The works of Z. and his associates include an extensive study and generalization of the problem of rickettsia diseases. For his scientific work, entitled "Theory of Rickettsia and Rickettsioses", Z. (together with Ye. M. Golinevich) was awarded the Lenin Prize in 1959. Z. is a co-editor of the "Great Medical Encyclopedia" (1st and 2nd editions).

# Works Published by Z.

1. "Malaria in Azerbaydzhan", Collection of Articles on Malaria, edited by N. Petrov et al., Moscow-Petrograd, 1923, p 35, Bibliography.
2. "Malaria in Mugani", Moscow-Baku, 1926.
3. "Ancylostomiasis", Baku, 1929.
4. "The Contemporary Problem of Specific Prevention of Diphtheria and the Large Scale Experience of Antidiphtherial Vaccinations in Lenin-grad", Arkhiv biologicheskikh nauk, Seriya A (Archives of Biological Sciences, Series A), Vol. 35, No. 2, 1934, p 123 Bibliography.
5. "The Problem of Reactivity in the Infection and Immunity Theory", Moscow, 1950.
6. "Brucellosis", Moscow, 1953.
7. "The Contemporary Status of Experimental Immunology and Its Immediate Tasks", Moscow, 1956, Bibliography.
8. "Theory of Rickettsia and Rickettsioses", Moscow, 1956 (in collaboration with Ye. M. Golinevich).
9. "Problems Concerned With Infectious Pathology and Immunology (Results of Research During the Period 1945-1957)", Vestnik AMN USSR (Herald of the Academy of Medical Sciences USSR), No. 1, 1958, p 19, Bibliography.

XXXIX. GEORGIY ARTEM'YEVICH ZEDGENIDZE

Following is a translation of an article by L. Lindenbraten in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol 10, 1959, page 844.

Born in 1902. Prominent Soviet roentgeno-radiologist, corresponding member of the Academy of Medical Sciences USSR. In 1927, graduated from the medical faculty of Tbilisi University, and then worked at the Leningrad Roentgenological Institute, the Leningrad Institute of Surgical Tuberculosis, and was also engaged in pedagogical work and headed the chairs for roentgenology and radiology at the First Leningrad Medical Institute Imeni I. P. Pavlov, the Naval Medical Academy and the Military-Medical "Order of Lenin" Academy Imeni S. M. Kirov.

During the Great Patriotic War of 1941-1945, Z. served as squadron commander and roentgenologist with the Soviet naval forces.

Z. is the author of about 80 scientific works, concerned with problems of roentgeno-anatomy, roentgeno-physiology and roentgeno-diagnosis of joint and bone diseases. Z. has worked in detail the organization of roentgenological service in the Soviet Naval Forces, and has studied the problem of roentgenodiagnosis of gunshot and traumatic bone and joint injuries. A number of his studies are devoted to the development of contrast methods for performing research on fistulas (fistulography). He has also studied functional changes arising in various organs and systems under the action of penetrating radiation, and has also given a description of the clinical, roentgenological and pathoanatomical picture of radiation injuries.

Z. is deputy editor of the roentgenological section of the "Great Medical Encyclopedia".

Works Published by Z.

1. "Experimental Fibrous Bone Dystrophies", Leningrad, 1938.
2. "Roentgenodiagnosis of Traumatic and Gunshot Bone and Joint Injuries" Leningrad, 1941.
3. "Roentgenodiagnosis of Bone and Joint Injuries", Moscow, 1944.
4. "Roentgenological Study of Fistulas of Gunshot Origin (Fistulography)" Leningrad, 1945.
5. "Roentgenological Data Pertaining to Gunshot Injuries of Large Vessels" Experience of Soviet Medicine During the Great Patriotic War of 1941-1945, Vol. 17, p 73 et al., Moscow, 1953.
6. "Roentgenodiagnosis of Salivary Gland Diseases", Leningrad, 1953.
7. "Functional Changes of Internal Organs and Systems During Acute Radiation Sickness Caused by External Irradiation", Trudy Vsesoyuz.konf. po med. radiol. (Transactions of the All-Union Conference on Medical Radiology), Moscow, 1957, p 30.
8. "Urgent Roentgenodiagnosis", Leningrad, 1957 (In collaboration with L. D. Lindenbraten).

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Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.

1. 1940-1941

**XL. VLADIMIR FILIPPOVICH ZELENIN**

Following is a translation of an unsigned article in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia) Vol. 10, 1959, page 848.

Born in 1881. Outstanding Soviet therapist, active member of the Academy of Medical Sciences USSR, "Honored Scientist".

Graduated from Moscow University in 1907. In 1911, defended a doctoral dissertation on changes of an electrocardiogram under the action of pharmacological compounds of the digitalin group.

From 1913 to 1918, worked as privat-docent in the faculty clinic of Moscow University. In 1918-1924, served as dean and director of the propedeutic, and later, of the faculty clinic at the State Higher Medical School in Moscow; since 1924, served as founder and director of the Clinical Institute for Functional Diagnosis and Experimental Therapy of Glavnauka (Main Administration of Scientific Establishments) attached to Moscow State University (later known as the Medical-Biological Institute). From 1929 to 1952, has been serving as director of the hospital clinic in the therapeutic faculty of the Second Moscow Medical Institute. From 1944 to 1949, Z. served as director of the Therapeutic Institute of the Academy of Medical Sciences USSR.

XII. LEV ALEKSANDROVICH ZIL'BER

Following is a translation of an article by Yu. Milenushkin in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 10, 1959, pages 868-869.

Born in 1894. Prominent Soviet immunologist and virologist, active member of the Academy of Medical Sciences USSR (1945). Graduated from the physical-mathematical (1917) and medical faculties (1919) of Moscow University, and then enlisted as a volunteer in the Red Army.

In 1921, worked in the Institute of Microbiology of the People's Commissariat of Public Health under V. A. Barykin. In 1929, served as head of the chair for microbiology at the Baku Medical Institute and as director of the Azerbeydzhan Institute of Microbiology. From 1930-1940, headed the chair of microbiology at the Central Institute for Postgraduate Medical Training in Moscow. Since 1939, headed the department of virology, and since 1945, headed the department of immunology and malignant tumors at the Institute of Epidemiology and Microbiology Imeni Gamaley of the Academy of Medical Sciences USSR.

Z. is the author of over 200 publications, including 9 monographs and a number of popular scientific articles and brochures. The early studies of Z. are concerned with the problem of variability of microorganisms. Later, he conducted a series of studies on immunology, the most important of which are concerned with an investigation of the thermal stability of antigens, of the antibody and complement. These studies constituted a basis for the preparation of saccharose AD-vaccines, which have found a practical application. In 1935, upon his initiative, the first virological establishment in our country was organized, namely the Central Virus Laboratory.

Z. was the initiator of the First All-Union Conference on Filterable Viruses (1935). A series of studies conducted by Z. and his associates are concerned with an investigation of antiviral immunity. He has established the role of the secretory factor in antiviral immunity and of the adaptative variability of the influenza virus; he has proposed a method for the isolation of the virus involving a number of passages through white mice. Z. has studied the phenomenon of viral and microbial symbiosis. Of outstanding importance is the work done by Z. in connection with the clarification of a disease previously unknown in scientific circles, namely Far Eastern tick-borne encephalitis. Z. and his associates have discovered and isolated the stimulant of this disease, and have established its epidemiology (1937). In collaboration with A. V. Shubladze, Z. established the presence in the USSR of Scotland encephalitis (looping ill). Z. was able to determine for the first time the presence of specific antigens in tumors, and described methods for detecting such antigens. Z. has been a consistent advocate of the virus theory in the etiology of



malignant tumors, and has conducted a number of studies which confirm this theory.

His monograph on epidemic encephalites (1945) was awarded the Stalin Prize. Over 20 doctoral and candidate dissertations have been completed under his direction.

Z. is the editor of the section on microbiology in the "Great Medical Encyclopedia".

#### Works Published by Z.

1. "Spring(Spring-Summer)Epidemic Tick-Borne Encephalitis", Arkhn. biol. nauk (Archives of Biological Sciences), Vol. 56, No. 2, 1939, P 9.
2. "Epidemic Encephalites", Moscow, 1945.
3. "On the Specific Complement of Malignant Tumors", Uspekhi sovr. biol. (Progress of Modern Biology), Vol. 30, No. 2, 1950, p 188.
4. "The Theory of Viruses", Moscow, 1956.
5. "Studies on Tumor Antigens", J. Nat. Cancer Inst., Vol. 18, 1957, p 341, Bibliography.
6. "Fundamentals of Immunology", Moscow, 1958.

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1. Nartsissov, N. V., Gardat'yan, A. M., "On the 60th Anniversary of L. A. Zil'ber", Mikrobiologiya (Microbiology), Vol. 24, No. 1, 1955, p. 119.
2. Timakov, V. D., "On the 60th Anniversary of L. A. Zil'ber", in book: "Problems of Immunology and Pathogenesis of Tumors", edited by G. V. Vygodchikov, Moscow, 1956, p 3.

### XLII. DAVID IOSIFOVICH ZIMONT

Following is a translation of an article by B. Preobrazhenskiy in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 10, 1959, pages 873-874.

Born in 1883. Prominent Soviet otorhinolaryngologist. Received his medical education in France and Switzerland, and then in Russia (Moscow, Khar'kov). Worked under S. Roux, P. A. Gertsen and N. A. Bogoraz. From 1908 to 1919, worked on problems of general and military surgery (mostly on the surgery of military wounds). In 1921, he set up the first large stationary otorhinolaryngological department at Rostov-on-the-Don. In 1925, he defended his doctoral dissertation on the subject of the treatment of the middle ear following the operative section of its cavities. Since 1929, served as professor of otorhinolaryngology at the Central Asian (Tashkent) University, and since 1931, head of a chair at Rostov Medical Institute.

Z. is the author of a number of original operative interventions, such as a rhinoplastic approach to the base of the skull, operation in the hard palate, etc.

In 1935, Z. proposed the use of an orthoscope, which is used mainly in medical child practice.

Z. is the author of 89 scientific works, including the first handbook (in 2 volumes) on the surgery of the upper respiratory tract published in the Russian language, a textbook on otorhinolaryngology for students of higher medical establishments, published in several editions, and a monograph on malignant neoplasms of the nose and its accessory sinuses, and of the larynx and pharynx.

#### Works Published by Z.

1. "Treatment of Gunshot Wounds", Petrograd, 1917.
2. "On the Treatment of the Middle Ear Following the Operative Section of Its Cavities", Dissertation, Rostov-on-the-Don, 1925.
3. "Surgery of the Upper Respiratory Tract", Vol. 1-2, Rostov-on-the-Don, 1940-1948.
4. "Malignant Neoplasms of the Nose Cavity and of Accessory Sinuses of the Nose and Pharynx", Rostov-on-the-Don, 1948.
5. "Diseases of the Upper Respiratory Tract and of the Ear", Rostov-on-the-Don, 1949.
6. "Malignant Neoplasms of the Larynx", Rostov-on-the-Don, 1949.
7. "Malignant Tumors of the Nose Cavity, of Paranasal Sinuses and of the Pharynx", Moscow, 1957, Bibliography.

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1. "Biography of Prof. D.I. Zimont", Zhurn. ishch. nos. i gorl. bol. (Journal of Ear, Nose and Throat Diseases), Vol. 15, Book 5, 1938, p 490.
2. "Professor David Iosifovich Zimont", Vestnik oto-rinol. (Herald of Otorhinolaryngology), No. 5, 1948, p 5.

### XLIII. AVLIPTY DAVIDOVICH ZURABASHVILI

[Following is a translation of an article by I. Menteshashvili in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 10, 1959, pages 1136-1137.]

Born in 1902. Outstanding Soviet psychiatrist and neuromorphologist, corresponding member of the Academy of Medical Sciences USSR and member of the Academy of Sciences Georgian SSR, "Honored Scientist."

Graduated in 1926 from the medical faculty of Tbilisi State University, and was retained in the chair of psychiatry for further post-graduate study in the field of psychoneurology. From 1931 to 1938, worked in Leningrad in the clinic of the Military-Medical Academy Imeni Kirov, studying problems of clinical psychiatry and neuromorphological problems in the laboratories of the Brain Institute Imeni V. M. Bekhterev, of the Institute of Physiology Imeni I. P. Pavlov, and of the All-Union Institute of Experimental Medicine (VIEM).

In 1934, defended a candidate dissertation, in which he presented and substantiated an ontogenetic classification of human optic thalamuses, and in which he described for the first time subnuclei (?) (pod'yadra) in the medial sectors of these formations; in 1937, he defended his doctoral dissertation, in which he established the laws governing the morphological development of the human frontal cortex.

Since 1938, Z. has been the director of the Institute of Psychiatry Imeni M. M. Asatiani in Georgia, and head of the chair for psychiatry at the Tbilisi Medical Institute.

Z. has published 125 scientific works, including 9 monographs concerned with various problems in the field of psychiatry and neuromorphology. Over 600 scientific works, including 29 dissertations, have been conducted under his direction. Z.'s most important works are concerned with a solution of problems dealing with the nosology, neurodynamics and therapy of schizophrenia, and with pathoarchitectonics and electroencephalography of schizophrenia and epilepsy. Z. has proposed the use of 8 modifications of the verbal (association) test.

In the field of fine morphology of the central nervous system, Z. has substantiated and developed the concept of synapso- and pathosynapso-architectonics. On hand of clinical and experimental data, he has demonstrated the particular vulnerability of dendritic processes and synaptic formations in the cortex of the large hemispheres during a wide variety of injuries; he has suggested the concept of the structural-dynamic reversibility of extremely fine changes in parenchymal formations of nerve tissues. For his research on synapsoarchitectonics, Z. was awarded the prize Imeni I. R. Tarkhnishvili (Tarkhanov) by the Academy of Sciences Georgian SSR in 1955.

#### Works Published by Z.

1. "On the Formation of Layers and Fields in the Cortex of Large Human Hemispheres in the Embryonic Development Stage", Dissertation, 1955.

ingrad, 1937.

2. "Psychiatry", Tbilisi, 1939 and 1948.

3. "Certain Urgent Problems Concerning Psychogenic Diseases", Tbilisi, 1940.

4. "On the Embryonic Development of the Cortex of Large Human Hemispheres and Certain Comparative Anatomical Data", Tbilisi, 1946. Bibliography.

5. "The Present Level of the Schizophrenia Theory", Tbilisi, 1958.

6. "Synapses and Reversible Changes of Nerve Cells", 2d supplemented edition, Russian translation, Tbilisi, Academy of Sciences Georgian SSR, 1958.

7. "Data on the Pathoarchitectonics of Radiation Injury", Tbilisi, 1956 (in collaboration with B. R. Naneyshvili).

#### XLIV. VADIM NIKOLAYEVICH IVANOV

Following is a translation of an article by G. Burchinskiy in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol 10, 1959, page 1126.

Born in 1892. Outstanding Soviet therapist, active member of the Academy of Medical Sciences USSR, member of the Academy of Sciences of Ukrainian SSR, "Honored Scientist", student of F. G. Yanovskiy.

After graduating in 1916 from the medical faculty of Kiev University, worked in therapeutic clinics of this university, later designated as a medical institute. In 1933, served as head of the chair for faculty therapeutical clinical work at the Second Kiev Medical Institute; in 1944, as head of the therapeutic chair at the Kiev Medical Institute; in 1951, appointed director of the hospital clinic and in 1958, director of the faculty therapeutic clinic at the same medical institute. Since 1959, has also been heading the division of clinical physiology at the Institute of Physiology of the Academy of Sciences Ukrainian SSR.

I. has published over 80 scientific works. His clinical-physiological studies of the motor activity of the stomach, of the secretion and transfer of duodenal contents into an empty stomach, outside of the digestive process, in humans under normal and pathological conditions, have made it possible to establish a number of new facts and concepts.

I. has devoted particular attention to the problem concerned with the periodic activity of digestive organs and its disturbances. He was one of the first scientists in the USSR to perform an extensive study of gastrography. In 1928, I. proposed the use of stimulants of varying strength in the study of gastric secretion. I. has published a number of studies concerned with gastric diseases, such as gastric ulcers, achylia, diverticula, etc. Over 20 studies conducted by I. are devoted to oncological problems.

He has studied and worked out clinical treatment and diagnostic methods used in connection with stomach and lung cancer, as well as general changes occurring in the organism of patients suffering from cancer of the internal organs, and particularly from stomach cancer.

In 1951, I. was awarded the Stalin Prize for his work on the study of the clinical and diagnostic importance of tomofluorography during pulmonary diseases, such as tuberculosis, cancer and abscesses.

I. is an honorary member of the All-Union Scientific Society of Therapists and chairman of the Scientific Society of Therapists of the Ukrainian SSR.

#### Works Published by I.

1. "On the Movements of a Fasting Stomach in Healthy People", Vrachebnoye Delo (Physician's Affairs), No. 20, 1926, p 1593, Bibliography.
2. "On the Transfer of the Duodenum Contents Into a Fasting Stomach Outside of the Digestion Process", Russkaya Klinika (Russian Clinic),

Vol. 5, No. 23, 1926, p 381, Bibliography.

3. "Clinical Types of Pharynx Carcinoma", Zhurn. medich. tsilku (Journal of Medical Service), Vol. 2, No. 4, 1932, p 771, Bibliography (Ukrainian).
4. "Diagnosis of Lung Cancer", Vrachebnoye Delo (Physician's Affairs) No. 1, 1949, p 7.
5. "Symptoms and Syndromes of a General Nature During Stomach Cancer" Ibid., No. 12, p 1109.
6. "Diagnostic and Clinical Importance of Pulmonary Tomofluorography" Uchenyye zapiski Kievskogo rentgenoradiolog. i ontologich. institute (Scientific Notes of the Kiev Roentgenoradiological and Ontological Institute), Vol. 2, Kiev, 1950, p 73.
7. "Progress in Internal Medicine in the Ukrainian SSR During the Past 40 Years", Vrachebnoye Delo (Physician's Affairs), No. 12, 1957, p 1239.

XLV. ANATOLIY GEORGIYEVICH IVANOV-SMOLENSKIY

Following is a translation of an article by V. Faddeyeva  
in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical  
Encyclopedia) Vol. 10, 1959, pages 1150-1151.

Born in 1895. Prominent Soviet neurologist, psychiatrist and pathophysiologicalist, active member of the Academy of Medical Sciences USSR, Stalin Prize laureate, student of I. P. Pavlov.

Graduated in 1917 from the Military-Medical Academy, where, for a number of years (1921-1928), he was engaged in scientific and pedagogical work in the chair of psychiatry. In 1921, defended his doctoral dissertation dealing with the nervous mechanisms of psychasthenia. In 1921, was engaged in experimental work in I. P. Pavlov's laboratories. In 1925, worked as professor at the chair of physiology and pathology of higher nervous activity (attached to the Institute Imeni Gertsen), the first chair of this kind in the USSR. In 1931, upon the recommendation of I. P. Pavlov, was appointed head of the psychiatric clinic attached to Pavlov's laboratories. From 1945 to 1950, headed the department of physiology and pathology of higher nervous activity, which he had set up in the Academy of Medical Sciences USSR. From 1952 to 1957, directed the Institute of Higher Nervous Activity of the Academy of Sciences USSR.

I-S. is the author of about 200 works, devoted to problems concerned with the physiology and pathophysiology of the animal brain, the higher nervous activity of infants, the development of Pavlov's theory in its application to clinical problems, mainly of a psychoneurological nature. While studying the higher nervous activity of animals, I-S. was able to establish a number of new facts: during processes of cortical analysis and synthesis, during phase symptoms, in the types of higher nervous activity, in experimental neuroses, etc. Together with his associates, I-S. has done a great deal of work in connection with the study of pathological changes in the higher nervous activity, and also of defense mechanisms occurring during experimental intoxications and infections of animals. He was able to establish a number of laws governing the development of the higher nervous activity in infants. An objective physiological study of the so-called voluntary movements, and an experimental investigation of the interaction between cortical signal systems, were initiated for the first time. I-S. has developed a number of methods for the experimental study of human higher nervous activity.

Works Published by I-S.

1. "Development of the Psychasthenia Theory and Results of an Experimental Psychophysiological Examination of Psychasthenic Patients", Dissertation, Petrograd, 1921.
2. "Methods for Studying Human Conditioned Reflexes", Leningrad, 1928, Moscow, 1933.
3. "Natural Science and the Science of Human Behavior", Moscow-Leningrad, 1933.



4. "Outline of the Pathophysiology of the Higher Nervous Activity"; Moscow, 1949 and 1952.

5. "Pavlov's Theory and Pathological Physiology", Moscow, 1952.

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"A. G. Ivanov-Smolenskiy" (On His 60th Birthday)", Zhurn. nevropat. i psikiatr. (Journal of Neuropathology and Psychiatry), Vol. 55, No. 4, 1955, p 315.

#### **XLVI. OTTO JIROVEC**

Following is a translation of an article by D. Zasukhin  
in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical  
Encyclopedia), Vol. II, 1959, pages 197-198.

Born in 1907. Well-known Czech parasitologist, protozoologist, and biologist, member of the Czech Academy of Sciences (since 1955). In 1920, graduated from the natural sciences department of Karlov University in Prague. Studied parasitology at the Hamburg Tropical Institute and at the Paris Parasitological Laboratory under E. Brumpt. In 1947, served as professor of parasitology and zoology at Karlov University; at present, director of the biological faculty at Prague (Karlov) University.

J.'s. research work is concerned with various problems in the field of cytology and biology of the most simple parasitic Trypanosoma, Toxoplasma, Myxo- and Microsporidia, Haplosporidia, Coccidia, malaria stimulants, Pneumocysts, Leptospira and Infusoria, as well as with problems dealing with the epidemiology, pathogenesis and chemotherapy of diseases caused by the above microorganisms. J. has described a number of new species of Micro-, Myxo- and Haplosporidia. In 1951, together with J. Vanek, J. discovered and described the stimulant of interstitial pneumonia of newborn babies (premature and weakened infants), known as Pneumocystis carini. He has published a series of communications dealing with this problem, which were confirmed in various countries of the world. A number of studies performed by J. are concerned with the epidemiology and chemotherapy of urogenital trichomoniasis. During the past few years, together with a staff of colleagues, J. is conducting large-scale studies concerned with various aspects of toxoplasmosis. Of particularly great value is his research work on the diagnosis of toxoplasmosis (skin test with toxoplasmin). J. has published a series of monographs on parasitology and protozoology, over 160 scientific works, and an extensive series of popular scientific articles.

#### Works Published by J.

1. "Zoologicka technika", Praha, 1942.
2. "Trichomoniasis Vaginalis", Gynaecologia (Basel), Vol. 129, 1950, p 145 (in collaboration with R. Peter).
3. "Protozoologie", Praha, 1953 (together with other authors).
4. "Parasitologie pro lekare", Praha, 1954.
5. "Zivot pod drobnoledem", Praha, 1955 (together with other authors).
6. "Studien mit dem Toxoplasmentest", Zbl. Bakt. I. Abt. Orig., Bd 169, 1957, p 129 (together with other authors).

#### Bibliography

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XLVII. VITALIY SERGEYEVICH IL'IN

Following is a translation of an article by S. Neyfakh in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. II, 1959, pages 219-220.

Born in 1904. Prominent Soviet biochemist, corresponding member of the Academy of Medical Sciences USSR.

From 1924 to 1940, worked as senior scientific associate in the laboratory of physiological chemistry at the Institute Imeni P. F. Lesgaft in Leningrad. Since 1940, headed the biochemistry chairs at the Stalinabad Institute (since 1940), the Leningrad Stomatological Institute (since 1945), and the Leningrad Institute for Postgraduate Medical Study (since 1952). In 1952, became director of the biochemistry division at the Leningrad Institute of Experimental Medicine of the Academy of Medical Sciences USSR.

I. is the author of 60 scientific works concerned with various problems of physiological chemistry and pathology of metabolism. His principal studies are devoted to the investigation of the mechanism of the regulating action exerted by the central nervous system and hormones on metabolic enzymatic links. I. and his associates have obtained concentrated preparations of the fibrinogenase enzyme, have studied the conditions under which this enzyme exerts its activity, and have established the importance of this enzyme in the metabolism of fibrinogen in the organism; they have also discovered a relationship between the activity of blood fibrinogenase and the effect exerted by the central nervous system, and have studied the role of fibrinogenolysis and fibrinolysis in case of shock and sudden death. In recent years, I. and his associates have been able to establish a direct relationship between the activity of hexokinase and the effect of factors involved in hormonal regulation (insulin, complex of corticosteroids with blood beta-lipoprotein); on the basis of these studies, I. and his associates presented a number of new concepts, which help to clarify the mechanism of insulin action and the pathogenesis of diabetes.

Works Published by I.

1. "Data Concerning the Study of the Mechanism Involving the Disturbance of the Carbohydrate Metabolism During Experimental Pancreatic Diabetes", Dissertation, Stalinabad, 1943.
2. "On the Causes of the Liquid Condition of Blood in People Who Have Been Subject to Sudden Death", Sbornik trudov Byuro Glavn. sud. med. ekspertizy i kaf. sud. med. Stalinab. sk. med. in-ta. (Collected Works of the Office for Chief Legal and Medical Expert Testimony and of the Chair for Legal Medicine of the Stalinabad Medical Institute), No. 4, 1954, p. 69.
3. "On the Regulation of the Energy Metabolism and Its Mechanism", Yezhegodnik In-ta eksperiment. (Annual Report of the Institute of Experimental Medicine), Leningrad, 1956, p. 189 (Together with S. A. Neyfakh).

XLVIII. ALEKSANDR ALEKSANDROVICH DASHENETSKIY

Following is a translation of an article by I. Rabotnova in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. II, 1959, page 358.

Born in 1905. Well-known Soviet microbiologist, corresponding member of the Academy of Medical Sciences USSR (Since 1946).

Graduated in 1926 from Voronezh University. Since 1930, worked as associate at the Institute of Microbiology of the Academy of Science USSR; in 1941, department head, and in 1949, director of this institute. In 1939, received the scientific title of doctor of biological sciences.

I. is the author of over 140 scientific works, covering a wide range of problems in the field of general and technical microbiology and including several monographs.

I.'s research work is concerned with the history of the development, and with the systematic classification, ecology, mutability and selection of bacteria and yeasts, and also with a study of the structure of bacteria (spore- and non-spore forming bacteria, Spirilla, Micrococci and Myxobacteriales). He has found that bacterial cells contain a considerable amount of nucleic substances. However, I. is an advocate of the concept that bacteria do not have a definitely shaped nucleus, and that the nuclear substance in their cells is present in a diffuse state. I. was able to observe differentiated nuclear structures in a group of Myxobacteriales. For over 15 years, I. has been studying microorganisms which are destroying cellular tissue. Contemporary data dealing with problems associated with the microbial transformation of cellular tissue have been summarized in a monograph describing the microbiology of cellulose. The isolation and study of thermophilic microorganisms made it possible to establish the extensive occurrence of such microorganisms, and to show that processes caused by thermophilic bacteria take place at a considerably faster rate than in the case of mesophilic organisms. I. has also been able to demonstrate the possibility of adaptation on the part of microorganisms to higher temperatures.

A number of studies conducted by I. are devoted to problems concerned with the mutability and species selection of fungi of industrial importance, including fungi producing penicillin and enzymes. He has developed principles for the selection of active strains, based on a correlation of morphological symptoms and physiological activity.

A number of studies performed by I. are of industrial importance in the production of enzymes, antibiotics, alcohol, etc. He has established the possibility of studying the process of nitrification on enzymatic preparations, and has determined the symbiotic interrelationships between nitrifiers and Myxobacteriales.

Works Published by I.

1. "Structure of Bacteria", Moscow-Leningrad, 1940.
2. "Microbiological Processes at High Temperatures", Moscow-Leningrad, 1947.
3. "Microbiology of Cellulose", Moscow, 1953.

## XLIX. INSTITUTES OF POSTGRADUATE MEDICAL TRAINING (IPMT)

Following is a translation of an article by E. Barkman in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 11, 1959, pages 583-587.

IPMT's are special types of state medical institutes in the USSR, designed to raise the qualifications of physicians in various theoretical, clinical and hygienic special fields.

In the range of activities at IPMT's, it is necessary to distinguish two main trends for improving the qualifications of physicians, namely postgraduate training and specialization.

Special courses are intended to provide young physicians with basic theoretical knowledge and practical skills in any specific special field of medicine.

In contrast to special courses, the postgraduate training of physicians is aimed at providing physicians, already having a record of experience in a special medical field, with a program of group (course) or individual training aimed at raising their qualifications, in order to augment their knowledge in this field and to enable them to study new problems concerned with theory and practice, diagnosis, treatment, prevention of diseases, and sanitary-epidemiological service to the population.

Prior to the Great October Socialist Revolution, Russia had no state system for the postgraduate training and specialization of physicians. In pre-revolutionary Russia, postgraduate training of physicians was a matter of individual initiative. There was only one institute for the advanced training of physicians, founded in St. Petersburg in 1885 upon the initiative of Prof. E. E. Eykhval'd (Eichwald?), after a period of 15 years of stubborn petitions on his part. This institute was given the name of "Imperial Clinical Institute for the Advanced Training of Physicians in Honor of the Grand Duchess Yelena Pavlovna". This institute was created on the basis of the Maximilian Hospital, the Obstetrics Institute, the Yelizavetinsk Hospital and the Krestovozdvizhensk Red Cross Community. In addition to the funds available at the above establishments, this institute was also supported with the aid of private contributions. Government subsidies represented the most insignificant portion in the budget of the institute.

The opening of the first IPMT in Russia was greeted in a very hostile manner by a considerable portion of the reactionary Moscow professorial staff, and this attitude constituted a serious obstacle for the rapid growth of this institute.

From 1885 to 1917, the clinical institute helped to improve the qualifications of 9,900 students. The number of "Zemstvo" physicians undergoing postgraduate training at the institute kept increasing every year. Thus, for example, the number of "Zemstvo" physicians during the

1885-1886 academic year amounted to about 9% of all students enrolled in the institute, while in 1909-1910, the number of "Zemstvo" physicians receiving scholarships from "Zemstvo" councils was already equal to one-half of all students at the institute.

In spite of a number of unfavorable conditions during this time, the clinical institute played an enormous role in creating a new method for improving the qualifications of physicians, by concentrating within its walls a group of leading and prominent scientists. However, the presence in the country of only one IPMT was insufficient to solve the problem concerning the postgraduate training of physicians.

The lack of the necessary methodical materials, such as academic plans and programs, also represented a great shortcoming. In most cases, the instruction program did not represent a systematic mastery of compulsory subjects or of individual sections of medical science.

Only after the Great October Socialist Revolution, was a government system for raising the qualifications of physicians established on an entirely new basis.

Starting in 1918, a number of IPMT's were opened in Kiev (1918) Kazan, Khar'kov, Odessa (1920), and Novosibirsk (1927). Hostels for students were organized at the institutes, and libraries were set up.

During the early period of their existence, the main task of the institutes involved the advanced training of physicians engaged in general practice, mainly physicians working in rural sectors. Thus, for example, during the first 10 years of the existence of the Kazan IPMT (Imeni V. I. Lenin, postgraduate medical training was given to 1,235 district physicians (out of a total of 1,780 physicians assigned to this institute). In later years, an extensive program was introduced for the special training of physicians and for raising their qualifications in various fields of medical activity.

Simultaneously with the development of special IPMT's, courses for raising the qualifications of physicians were organized during 1920-1930 at various scientific-research institutes in Moscow, Leningrad and in a number of other large centers.

These courses trained specialists in the field involving the struggle against social diseases, such as phthisiology, venerology, and also the protection of mothers and children.

The decree issued by the Council of People's Commissars RSFSR, entitled "On Scientific Assignments of Physicians" (1927), played a major role in the development of a system for raising the qualifications of physicians and in expanding the activities of these institutes. This decree provided that all physicians, assigned to attend courses for postgraduate training or specialization, were to retain the wages which they received at the location of their main work, and were also entitled to receive travel allowances and monthly scholarships during the time they attended those courses.

In view of the growing number of physicians during the industrialization and collectivization years, it became necessary to carry out a considerable expansion of the system providing postgraduate medical training.



ing and specialization to physicians. The number of IPMT's increased rapidly. In 1930, the Central IPMT was opened in Moscow; in 1931, a similar institute was opened in Minsk; in 1932, in Tashkent, and in 1935, in Tbilisi and Baku.

By 1941, 11 IPMT's were operating in the USSR.

During the post-war years, all IPMT's and their basic facilities which had suffered damage during the Great Patriotic War were fully restored.

In order to have the institutes located as close as possible to the most important industrial centers of our country, the Novosibirsk IPMT was transferred in 1950 to Stalinsk, center of the Kuznetsk Basin (Kuzbas), and the Odessa IPMT was transferred in 1955 to Zaporozh'ye (Ukrainian SSR). At present, all IPMT's are engaged in the specialization and advanced training of physicians in all medical special fields.

Prior to the Great Patriotic War, in a number of decrees issued by the Soviet government, such as the decree issued by the Presidium of the Central Executive Committee USSR in 1934 on "Training of Physicians", and the decree issued in 1938 by the Council of People's Commissars USSR on "Consolidation of Rural Medical Sectors", the periodic advanced training of physicians had to take place within a specified period of time, namely after each 3 years of practice in a rural medical district and after each 5 years of practice in city establishments.

During the years of the Great Patriotic War, an extensive amount of work was done at IPMT's on the specialization and advanced training of reserve physicians for frontline and rear area hospital bases. Approximately 20,000 physicians from evacuated hospitals received special training at these institutes.

In addition to giving medical instruction, the staffs of scientific workers employed in IPMT's are engaged in extensive scientific-research work carried out in their own clinics (Leningrad, Kazan'), in city hospitals, scientific-research institutes and laboratories.

During a number of years, the Publishing House of the Central IPMT has published a large volume of training manuals in the section entitled "Library of Practicing Physicians", and works of the scientific conferences held at the institute.

During the post-war years, training stages varied in duration from 2 to 6 months, according to the complexity and the nature of the special or advanced training course offered to physicians.

Courses of a brief duration (1-2 months), which have found a wide field of application, have been introduced for the benefit of physicians specializing in a certain field, who are interested in studying new diagnostic methods, surgical operations, the use of new medicinal preparations recently introduced into practice, or laboratory research methods.

The IPMT's provide considerable organizational and methodical assistance to courses aimed at raising the qualifications of physicians, conducted at local and most important medical-sanitary establishments (present in local bases), which are attended annually by over 10,000 physicians.



The Moscow Central IPMT has rapidly become one of the leading and largest institutes, where special chairs have been set up in its various faculties (therapeutic, surgical and sanitary-hygienic faculties).

During the 28 years of its existence (1930-1958), the Central IPMT in Moscow (TsIU) has helped to raise the qualifications of over 110,000 physicians.

A particularly important role of this institute includes scientific and methodical development work on instruction plans, programs, methodical notes used in lectures and practical courses given in all special training courses and cycles.

This institute, serving as the methodical center of the Ministry of Public Health USSR, is entrusted with the task of supplying all IPMT's in the USSR, and, in the post-war years, all similar institutes in Peoples' Democratic Countries, with methodical materials and training manuals and aids.

The staff of TsIU includes about 100 professors and over 200 candidates of medical sciences, serving as instructors and scientific workers.

During the past 20 years (1938-1958), over 300 doctoral and over 650 candidate dissertations were completed at the TsIU by scientific workers from union republics of the Soviet Union, and (in the post-war years), from Rumania, Bulgaria and Czechoslovakia, and over 20 dissertations have also been defended by physicians from the Chinese, Korean and Viet-Nam Peoples' Republics.

The institute has substantially expanded the training program for physicians engaged in the administration of the public health service and for the leading staffs of public health organs in union republics. Since 1947, on the basis of the institute facilities, special annual and 5-month courses are offered to leading personnel of union and republican ministries and Kray and Oblast' public health departments. During the past 10 years, over 500 physicians have completed these courses, which include leading personnel in the public health service of union republics, the Ministry of Communications, the All-Union Central Council of Trade Unions (VTsSPS) and other organizations.

Since 1956, a 1½-year correspondence training course has been organized at the Central IPMT for public health administrators, which includes a compulsory final confrontation session, in which the correspondence students are certified by an examination commission.

Correspondence courses have also been organized for deputy chief physicians engaged in administrative and economic activities and for bookkeepers of medical establishments.

The number of correspondence students is increasing each year: from 435 students in 1956 to 3,200 students in 1958. The activities of IPMT's are planned by the Ministries of Public Health of the USSR and Union republics, whereby consideration is given to the requirements of public health organs as well as to the capacity of both institutes and other medical establishments used for the same purpose. During 40 years of Soviet rule, IPMT's have trained about 400,000 physicians working in various

special fields; in chairs and clinics of medical institutes, 25,000 physicians have received special and advanced training during the past 15 years (1944-1958), while approximately 50,000 physicians have been trained in local base facilities during the past 10 years (1948-1957). The table below lists the number of physicians which have received special and advanced training at individual IPMT's.

Institutes for Postgraduate Medical Training	Years	Number of Physicians	Number of Physicians in 1957
Leningrad . . . . .	1885-1956	96,663	2,841
Kiev . . . . .	1918-1956	26,417	1,852
Kazan' . . . . .	1920-1956	32,697	1,253
Khar'kov . . . . .	1923-1956	29,607	1,494
Stalinsk . . . . .	1927-1956	25,488	1,047
Zaporozh'ye . . . . .	1927-1956	11,343	885
Central IPMT . . . . .	1930-1956	96,841	4,688
Minsk . . . . .	1931-1956	5,636	640
Tashkent . . . . .	1932-1956	11,482	922
Tbilisi . . . . .	1935-1956	15,064	1,169
Baku . . . . .	1935-1956	10,292	3,886

In addition, a total of 24,181 physicians received special and advanced medical training in chairs and clinics of medical institutes between 1944 and 1956.

A total of 658 physicians were trained during 1957, and up to 1,000 physicians were trained during 1958. Between 1948 and 1956, local medical bases have trained 46,750 physicians, and 6,159 physicians were trained at these bases in 1957.

The Soviet system for raising the qualifications of physicians is studied with great interest by representatives of various countries of Europe, Asia and America visiting the Soviet Union.

The Soviet system for raising the qualifications of physicians and its methodical materials, such manuals, programs, training and instruction plans, are widely used in the Chinese People's Republic and in other European People's Democratic countries.

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1. "Forty Years of Soviet Public Health", edited by M. D. Kovrigina, Moscow, 1957, p 382 et al.
2. "Jubilee Collection of Scientific Works Devoted to the 50th Anniversary of the Leningrad State Institute for Postgraduate Medical Training", Moscow-Leningrad, 1935.

I. DAVID GEORGIYEVICH IOSELIANI

Following is a translation of an unsigned article in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 11, 1959, page 921.

Born in 1894. Prominent Soviet surgeon, "Honored Scientist". Graduated from the Military-Medical Academy in 1917. In 1919, worked as assistant in the chair for topographic anatomy and operative surgery of the medical faculty of Tbilisi University. In 1937, defended his doctoral dissertation on the subject of osseous nerves of the hip and shin and the effect exerted by injuries of such nerves on the development of calluses; the same year, he was appointed head of the chair for topographic anatomy and operative surgery at the Tbilisi Medical Institute. Since 1940, has served as director of the Tbilisi Institute for Post-graduate Medical Training and as chief surgeon of the Ministry of Public Health of the Georgian SSR. Since 1947, heads the chair of general surgery in the therapeutic faculty of the Tbilisi Medical Institute.

I. is the author of approximately 60 scientific works concerned with problems of operative surgery.

Works Published by I.

1. "Osseous Nerves of the Hip and Shin and the Effect of Injuries to Such Nerves on the Development of Calluses", Tbilisi, 1937 (in Georgian).
2. "Concerning the Problem of Parapleurites", Khirurgiya (Surgery), No. 9, 1951, p. 12.
3. "Concerning the Problem of the Treatment of Sigmoid Colon Ileus", Ibid., No. 6, 1952.

LI. VLADIMIR IL'ICH IOFFE

Following is a translation of an article by Yu. Milenushkin in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. II, 1959, pages 923-924.

Born in 1898. Prominent Soviet microbiologist and immunologist, corresponding member of the Academy of Medical Sciences USSR (1946). Graduated from the medical faculty of Kazan' University in 1921. In 1923, worked at the Institute of Epidemiology and Microbiology, where he headed the medical microbiological section. From 1941 to 1946, he directed antiepidemic work in the Red Banner Baltic Fleet. The work done by I. and his associates is concerned with a study of intestinal infections, children's droplet infections, immunity, and also with the immunology of malignant tumors. I. has given a serological description of hemolytic streptococci and has established their receptor structure.

I. has proposed a differentiation (distinction) of microbes belonging to the typhous and dysentery group according to enzymatic (intestinal group) and catalase (dysentery) symptoms, and has studied the serological variability of microbes belonging to the intestinal group. While studying child infections, and particularly scarlet fever, I. has developed a method allowing a comparative evaluation of the magnitude of the microbial focus and of the dynamics of its growth and extinction, and has also studied in detail the microbiology and immunology of whooping cough, and has proposed a method for the early diagnosis of this disease in the incubation period and in the prodrome stage. During the years of the Great Patriotic War, I. performed a number of studies dealing with the microbiology and serology of intestinal infections, specifically with the so-called block dysentery, and has worked out appropriate anti-epidemic measures. A number of studies conducted by I. are devoted to the problem concerned with the general non-specific resistance of the organism towards infections.

Works Published by I.

1. "On the Serological Properties of Bact. faecalis alkaligenes," Arkh. biolnauk (Archives of Biological Sciences), Vol. 27, No. 1-3, 1927, p 141.
2. "Concerning the Specific Prophylaxis of Diphtheria and a Number of Other Urgent Research Problems", Sov. vrach. zhurn. (Soviet Physician's Journal), No. 1, 1941, p 45.
3. "Concerning a New Principle in the Study of Virus Infections", Zhurn. mikrobiol. epidemiol. i immunol. (Journal of Microbiology, Epidemiology and Immunology), No. 6, 1946, p 10 (in collaboration with other authors).
4. "Scarlet Fever", Moscow, 1948.
5. "On the Immunological Study of Malignant Tumors", Zhurn. mikrobiol. epidemiol. i immunol. (Journal of Microbiology, Epidemiology and

- Immunology), No. 7, 1951, p 43 (in collaboration with other authors).
6. "On Certain Basic Problems Concerned With Children's Droplet Infections", Annual Report of the All-Union Institute of Experimental Medicine, edited by D. A. Biryukov, Leningrad, 1956, p 262.
  7. "Certain Results of a Study of the General Immunological Reactivity of the Organism Under Clinical and Epidemiological Conditions", in book: "Fundamentals of Immunity", edited by V. M. Zhdanov, A. N. Meshalova and A. V. Ponomarev, Moscow, 1956, p 21.

LII. LEONID MIKHAYLOVICH ISAYEV

[Following is a translation of an unsigned article in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 11, 1959, page 962.]

Born in 1886. Prominent Soviet parasitologist and epidemiologist, "Honored Scientist of the Uzbek SSR".

Graduated from the Military-Medical Academy in 1912. From 1921 to 1924, worked as assistant at the Moscow Tropical Institute. In 1924, set up in Bukhara the first tropical institute in Central Asia, presently known as the Uzbekistan Institute of Malaria and Medical Parasitology in Samarkand, and became the director of this institute. From 1936 to 1949, served simultaneously as head of the chair for tropical diseases at the Samarkand Medical Institute.

I. is the author of over 40 publications dealing with problems of regional parasitology and epidemiology, such as malaria, tick-borne spirochetosis, visceral leishmaniasis and helminthic diseases.

Of particularly great value are the systems of measures developed by I. aimed at the liquidation of Draculuncus melitensis and the elimination of epidemic malaria foci in Central Asia, which involve a combination of antilarval, hydromeliorative and other measures. In 1931, under the direction of I., an epidemic focus of Draculuncus melitensis in Bukhara and its suburbs, the only focus of this kind in the USSR, was liquidated.

I. has directed the study of malaria and of measures for combating this disease in Uzbekistan. I., together with a group of malariologists, has been awarded the Stalin Prize for the development and practical application of a system of measures aimed at the liquidation of malaria.

Works Published by I.

1. "Irrigation and Malaria in Central Asia", Vestnik Irrigatsii (Herald of Irrigation), No. 3, 1926, p. 3.
2. "The Problem of the Sharp Reduction of the Morbidity Rate Due to Tick-Borne Spirochetosis in Uzbekistan", Med. parazitolog. (Medical Parasitology), Vol. 25.

LIII. ROSTISLAV YEVGEN'YEVICH KAVETSKIY

Following is a translation of an article by P. Gorizontov in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 11, 1959, pages 1119-1120.

Born in 1899. Prominent Soviet pathophysiologist, member of the Academy of Sciences Ukrainian SSR (since 1951).

Graduated from Samara University in 1925. In 1928, defended a doctoral dissertation on the subject of the role played by the active mesenchyma in making the organism susceptible to the development of malignant neoplasms. From 1933 to 1952, worked at the Institute of Clinical Physiology of the Academy of Sciences Ukrainian SSR. Since 1952, member of the Presidium of the Academy of Sciences Ukrainian SSR and chairman of the Division of Biological Sciences of this academy. Serves at the same time as director of the laboratory for compensation and defense functions at the Institute of Physiology of the Academy of Sciences Ukrainian SSR.

K. has published over 100 works, the most important of which are concerned with the problem of the organism's reactivity and the study of tumor pathogenesis. In particular, K. has studied the role of nervous-endocrine regulation, of metabolism and the condition of connective tissues in the development of tumors. The skin test with trypan blue, proposed by K., and the determination of the carcinolytic factor, have found practical clinical application in describing the functional status of connective tissue and permeability processes.

K. and his associates have demonstrated that individual characteristics of compensatory reactions during hemorrhages, hunger and fatigue are determined by the type of nervous system.

Works Published by K.

1. "The Role of the Active Mesenchyme in the Disposition of the Organism to Develop Malignant Neoplasms", Kiev, 1938.
2. "Disruption of the Acid-Alkali Equilibrium", Rukovodstvo po pat. fiziol. (Handbook on Pathological Physiology), edited by A. A. Bogomoletz, Vol. 2, Part 2, Kiev, 1947, p 523.
3. "The Origin of Russian Medicine", Kiev, 1954.
4. "The Tumoral Process and the Nervous System", Kiev, 1958 (as editor)



#### LIV. VALERIY IVANOVICH KAZANSKIY

Following is a translation of an unsigned article in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol 11, 1959, page 1137.

Born in 1894. Prominent Soviet Surgeon, Graduated from the Military-Medical Academy in 1919. In 1923, worked as surgeon in the Karakalpak Autonomous Oblast, and in 1935, in the surgical clinic under S. I. Spasokukotskiy. In 1938, served as senior associate at the Central Institute of Hematology and Blood Transfusion. In 1941, was appointed director of the surgical clinic at this institute. In 1947, served as chief oncologist in the Ministry of Public Health USSR. In 1953, appointed head of the chair for clinical surgery at the Central Institute of Postgraduate Medical Training.

K. is the author of over 100 scientific works, devoted mainly to problems of clinical hematology, blood transfusion and thoracic surgery. In 1945, for the first time in the USSR, performed successfully several radical operations on cancer of the esophagus. He has developed a number of operative methods used in connection with this disease.

K. has developed an original method for the anesthesia of the anterior mediastinum, which has been successfully used on several hundred patients suffering from stenocardia. K. was the first one in the Soviet Union to carry out an omentocardiopexia operation, which has been introduced into the medical treatment of coronary insufficiency.

At the 26th All-Union Congress of Surgeons in 1955, and at the Congress of German Surgeons in 1956, K. has presented reports describing an original method for the vascularization of the myocardium, involving a suture of the omentum to the heart.

##### Works Published by K.

1. "Data Pertaining to the Theory of the Hemopoietic Function of the Spleen", Chardzhuy, 1931.
2. "Splenectomy in Werlhof's Disease", Ashkhabad, 1935.
3. "Transpleural Resection of the Thoracic Section of the Esophagus During Cancer", Moscow, 1948 and 1951.

#### LV. KAZAN' MEDICAL INSTITUTE

Following is a translation of an article by T. Epshteyn in Bol'shaya Meditsinskaya Entsiklopediya (Great Medical Encyclopedia), Vol. 11, 1959, pages 1138-1140.

Higher medical establishment in the city of Kazan'. From 5 (17) November 1804 until 1930, was a faculty of Kazan' University. The institute includes the following faculties: a therapeutic-prophylactic, a sanitary-hygienic, a pediatric and a stomatological (since 1954) faculty.

Prior to the 1860's, chairs were set up and staffs of Russian scientists were organized at the medical faculty of Kazan' University.

The great Russian mathematician, N. I. Lobachevskiy, played a prominent role in the organization and development of the medical faculty (construction of an anatomical amphitheater, equipment of clinics, etc.). During these years, the following prominent scientists worked in the medical faculty: the anatomist Ye. F. Aristov, the therapist K. F. Fuks (who also worked as a regional ethnographer), the therapist and physiologist N. A. Skandovskiy, the surgeons F. O. Yelachich, N. A. Dubovitskiy and A. A. Kiter.

In the 1880's the number of chairs was increased to 23. During this period, the most prominent scientist of the faculty included P. F. Lesgaft, F. V. Ovsyannikov, N. O. Kovalevskiy, A. Ya. Danilevskiy, A. A. Sokolovskiy, I. M. Dogel', V. V. Pashutin, N. A. Vinogradov, L. L. Levshin, N. I. Studenskiy, Ye. V. Adamyuk, I. M. Gvozdev and A. I. Yakobi.

In 1868, the scientific staff of the faculty organized the Society of Physicians of the City of Kazan'. This society contributed to the development of sanitary and hygienic knowledge and research. The society published a "Diary of the Society of Physicians of the City of Kazan'", which later became known as the "Kazan' Medical Journal".

From the middle 1890's until the Great October Socialist Revolution, the medical faculty of Kazan' University consolidated its status as one of the largest centers of medical science and training of physicians in Russia. This was made possible as a result of the efforts of well-known scientists and of the scientific schools headed by these scientists, which include such men as V. N. Tonkov, N. A. Mislavskiy, I. G. Savchenko, A. N. Kazem-Bek, L. O. Darkshevich, V. M. Bekhterev, V. I. Razumovskiy, N. N. Fenomenov, A. G. Ge and M. Ya. Kapustin. After the Great October Socialist Revolution, the medical faculty of Kazan' University reorganized its work according to the requirements of the period involving the building of a socialist society. For this purpose, material basic facilities were substantially expanded, and a number of new chairs were set up (their number was increased to 51); the number of students enrolled in the faculty, and later in the institute, increased to 3,000, as compared

to the 500-600 students studying at the faculty during the last pre-revolutionary years. The training of physicians of various nationalities, such as Tatars, Chuvashi, Mari, etc., was expanded. The number of such students amounted to 40% of the total student body. A total of 500-550 physicians graduated from the institute, as compared to 90-100 physicians in the pre-revolutionary years. During 102 years of the Tsarist regime (1815-1917), a total of 4,493 physicians graduated from the medical faculty, while during 40 years of Soviet rule (1917-1957), a total of 12,512 physicians graduated from the faculty. The years following the October Revolution were marked by a further growth of scientific activities at the Kazan' Medical Institute. A nucleus (core) of old scientific cadres remained active for a rather long time at the institute, and a successive training of new cadres was taking place. These new cadres include such men as the physiologists N. A. Mislavskiy and A. F. Samoylov, the histologist A. N. Mislavskiy, the anatomist V. N. Tarnovskiy, the pathoanatomists F. Ya. Chistovich, I. P. Vasil'yev, the pathophysiologist N. N. Sirotinin, the microbiologist V. M. Aristovskiy, the therapeuticians S. S. Zimnitskiy, M. N. Cheboksarov, A. G. Teregulov and N. K. Goryayev, the surgeons V. L. Bogolyubov and A. V. Vishnevskiy, the gynecologist V. S. Gruzdev, the ophthalmologists V. Ye. Adamyuk, V. V. Chirkovskiy, the hygienist V. V. Miloslavskiy, the public health organizer F. G. Mukhamedyarov, etc.

A significant contribution to Soviet science was achieved as a result of the work done by A. V. Vishnevskiy and his school in the field of local anesthesia and novocain block; of the work done by A. F. Samoylov in the field of electrophysiology; of the work done by A. V. Kibyakov on the theory of mediators; as a result of the classical research studies, started in Kazan', of B. I. Lavrent'yev in the field of the fine structure of elements of the vegetative nervous system; of the work done by V. M. Aristovskiy and R. R. Gel'tser, who studied the stimulants of recurrent typhus and syphilis; as a result of the early research done by V. A. Engel'gardt on metabolism in erythrocytes; of the functional test of S. S. Zimnitskiy; of the hematological atlas developed by N. K. Goryayev and his blood count chamber; of the work done by V. V. Miloslavskiy on endemic goiter and microelements; and of the work done by N. V. Sokolov on sepsis, and as a result of many other studies conducted by Kazan' medical scientists.

Prominent Soviet medical scientists have graduated from the Kazan' medical school, such as K. M. Bykov, A. D. Speranskiy, I. P. Razen'kov, F. F. Zdrodovskiy, N. G. Kolosov, A. D. Ado, etc. The progressive ideas held by the Society of Physicians of the City of Kazan' contributed to the education of prominent figures of Russian "Zemstvo" medicine, who were advocates of prophylactic principles in the medical field, such as Ye. A. Osipov, N. I. Tezyakov, P. F. Kudryavtsev, V. O. Portugalov, M. M. Gran. In Kazan', P. A. Peskov established the foundations of medical statistics, which underwent extensive development in the work done by "Zemstvo" physicians and public officials. V. I. Lenin frequently referred to the sanitary-hygienic work of N. I. Tezyakov and P. F.

Kudryavtsev in his work "Growth of Capitalism in Russia". Founders of Soviet medicine, such as N. A. Semashko and Z. P. Solov'yev, were products of the Kazan' medical school.

Graduates of the Kazan' Medical Institute are serving as heads of chairs in numerous higher medical establishments in Gor'kiy, Saratov, Kuybyshev, Stalingrad, Sverdlovsk, Omsk, Irkutsk, Krasnoyarsk, Alma-Ata, Samarkand and other cities of the USSR, and are serving in leading posts at scientific-research institutes in Moscow, Leningrad and many other large scientific centers.

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